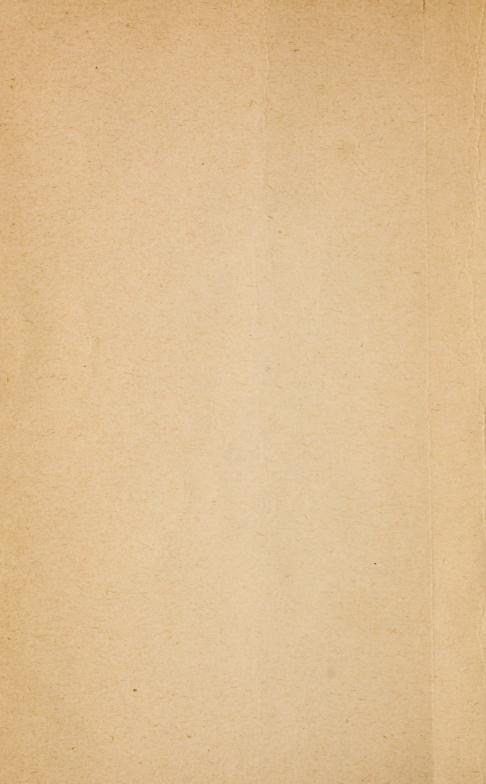


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NEW JERSEY STATE TEACHERS COLLEGE AT MONTCLAIR

UNDERGRADUATE BULLETIN

1950-1952



Bulletin of Information

AND

Catalog of Courses

1950-1952

CALENDAR 1950-1951

Montclair State Teachers College

1950

September 11-13 Registration tests and beginning of classes

October 12

Columbus Day (no classes)

October 13

Annual Faculty Institute (no classes)

November 10

Annual Convention New Jersey Education Association (no classes)

November 11

Armistice Day (no classes)

November 22

Thanksgiving recess (begins 3:00 p.m.)
Thanksgiving recess (ends 8:30 a.m.)

November 27 December 21

Christmas recess (begins 12:15 p.m.)

1951

January 3

Christmas recess (ends 8:30 a.m.)

January 26

End of first semester

January 29-30

Registration and beginning of second semester classes

February 12

Lincoln's Birthday (no classes)

February 22

Washington's Birthday (no classes)

March 22

Spring recess (begins at 3:00 p.m.)
Spring recess (ends at 8:30 a.m.)

April 2 April 23

Entrance Examinations (no classes)

May 30

Memorial Day (no classes)

June 11-14

Final examination and commencement activities

July 2 and 3

Summer Session Registration

July 4

Independence Day (no classes)

July 5

Classes Begin

August 16

Final examinations and end of summer session

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Monmouth College, Monmouth, Ill.; New York University, New York City; Columbia University, New York City, B.S.; Teachers College, Columbia University, New York City, A.M.; School of Library Service, Columbia University, New York City, Certificate in Library Science.

Business, Dormitory and Secretarial Staff

BERNARD SIEGEL, B.S.	Business Manager
HENRY STEINER	
OTTO CORDES, P.E.	Superintendent of Buildings and Grounds
KARL F. MOSTERT	Steward
MARCIA F. HIBBS	
HARRIET V. MAXWELL	
OLIVE MEADE	
FRANCES VINAL, A.B.	Secretary to the President
MARIE M. FRAZEE, A.B., A.M.	Secretary to the Dean of Instruction
ESTHER B. SPENGEMAN, A.B.	Secretary to the Integration Office

Part I

GENERAL INFORMATION

GENERAL OBJECTIVE

The general aim of the College is the same as that for all education in a democracy—the preparation of youth for a constructive and profitable life in society. This general citizenship aim is fundamental to the course of study and the method of teaching.

The New Jersey State Teachers College at Montclair is a professional school which prepares teachers for the junior and senior high schools of the State. This definite objective has been the controlling factor in the development of the curricula, teaching procedures, extra-curricular activities, and college spirit and has tended to unify all activities—professional, cultural, and social.

The College is organized for those who have a sincere interest in promoting the general welfare of society through the medium of the secondary schools of the State. Those who have the natural ability to become friends, guides, and leaders of youth should consider the opportunities offered by the profession of teaching.

FUNDAMENTAL PRINCIPLES AND POLICIES

The following principles control the organization and development of the College. The second statement of each principle is somewhat explanatory of the first and in most cases is addressed particularly to students.

- (1) The College should have clearly defined objectives which should limit and control its offerings and activities.

 Entering students should understand what the College has to offer in relation to their interest and purposes.
- (2) The College should be so organized and administered as to promote the interests and welfare of prospective workers in the profession.

 The students should be offered the most desirable opportunities for the promotion of their educational interests and success, their physical health and energy, their emotional adjustments and stability, and their social attitudes and habits.
- (3) To teach should be a privilege and not a right, i.e., candidates for teacher preparation should be selected.

 The students who are to be privileged to prepare for teaching must demonstrate their intellectual, personal, and scholastic fitness for the profession.
- (4) The relative value of the curriculum materials used in a teachers college should be judged by the nature and needs of the schools and communities which it serves. Though teachers are exponents of broad culture, yet the selection of the necessary materials for a prospective teacher must be made on the basis of professional service.

- (5) Teacher preparation should be differentiated and specialized in accordance with the aims and organization of schools to be served.

 The differentiated program at Montclair provides for the training of junior and senior high school teachers and permits specialization within this program in English, foreign languages, mathematics, science, social studies, administration and guidance, business education, geography, music, physical education, and speech.
- (6) Prospective teachers should acquire a rich background of general culture including a knowledge of present-day problems.

 The professional-cultural background studies offer a broad human interest in the social, political, economic, industrial, religious, scientific, literary, and aesthetic phases of life.
- (7) Professional scholarship should be sound.

 Professional scholarship refers particularly to the scholarship required in the student's major and minor fields of specialization. Each student is required to complete approximately thirty-three semester-hours in his major and eighteen semester-hours in his minor field of interest.
- (8) Prospective secondary school teachers should not only acquire a teaching knowledge of subject-matter but also a teaching knowledge of adolescent pupils involving the theories and techniques in their instruction.

 The professional objectives provide teachers college students with a motive for learning which in turn insists upon functional knowledge. The adjustment of this knowledge to the aptitudes and needs of high school pupils requires methods and skills in instruction.
- (9) The program of studies and activities of a teachers college should be progressive, sequential, and integrated. Education is confronted with the problem of bringing isolated courses back into their natural relationships or into a unified body of knowledge in order to promote broader understanding, clearer meanings, and balanced judgment.
- (10) The College should seek persistently to maintain high standards of excellence together with practical concepts of usefulness.

 Students must give their best efforts, maintain high standards of scholarship, and demonstrate ability to use their knowledge and skills.
- (11) Open-mindedness on the part of all participants in teacher preparation should be encouraged in order to facilitate individual adjustments and growth. A student's experience in college stimulates intellectual curiosity along with an interest in truth. Such attitudes promote a recognition and understanding of differences and an ability to adjust and grow in a changing world.

History

In 1903 the State Board of Education recommended that a Normal School be established in the northern part of the State of New Jersey. The following year the Legislature purchased a site of twenty-five acres in Upper Montclair. The main building, College Hall, was completed in 1908, and the first class was admitted in September of that year.

Seven years later Edward Russ Hall was built with the bequest of the Honorable Edward Russ, who at the time of his death was a member of the State Board of Education and chairman of the Normal School Committee. Other buildings were added to the campus in 1928 and 1929.

Additional land, lying to the north of the main campus, was purchased in 1927 and 1929, bringing the total area to seventy acres.

On May 27, 1927, the State Board of Education passed resolutions as recommended by the State Department of Public Instruction establishing the State

Teachers College at Montclair for the education of teachers for the secondary schools. The first class was graduated from the four-year college curriculum in June 1930.

Extension courses were added to the teachers college program in 1929. The summer session was established in 1930. Late in the spring of 1932 the State Board of Education voted that the College should offer graduate courses and grant a Master's degree.

Professional and Academic Status

The New Jersey State Teachers College at Montclair is a fully accredited member of the American Association of Teachers Colleges, the Middle States Association of Colleges and Secondary Schools, the American Association of University Women, and the Association of American Universities. Credits are exchangeable among colleges and universities which are members of the above regional and national associations.

Location

The College is located in Upper Montclair about three miles from Montclair Center. The city of Montclair and the college campus are located on the east side of the Watchung mountain, which extends from north to south. From this elevation the campus commands a view of unusual interest and beauty. The city of New York, which is about twelve miles to the east, forms the background of the campus view. In the foreground may be seen the gardens, towns, and cities of Bergen, Hudson, Essex and Passaic counties. The view is impressive by night when one sees the myriad lights of this metropolitan section.

The college campus may be reached by the Lackawanna Railroad to Montclair, and then by bus to the southeast entrance; by the Erie Railroad to the Montclair Heights Station, which is near the south entrance, and also by direct bus lines from New York, Newark, the Oranges, and Paterson.

Grounds and Buildings

The various legislative appropriations for land have provided the College with a campus of seventy acres. The campus is developed with roadways, walks, shrubbery, wooded sections, lawns, tennis and other recreational courts, athletic fields, gardens, and an outdoor theatre.

College Hall contains administration offices, library, cafeteria, gymnasium, and classrooms.

Edward Russ Hall and Chapin Hall are maintained by the State as dormitories for the college women. Both buildings are fireproof in construction and are designed in the Spanish Mission style with white stucco walls and red Spanish tile roofs to conform in character to the other buildings on the campus. Each dormitory accommodates about one hundred students with single and double rooms, laundry, bathrooms, infirmary, storage rooms, reception room, living

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room, and offices for hostesses, doctor, and nurse. The living rooms are the social centers and are designed to accommodate conferences, clubs, dances, receptions, and other social activities. The dining rooms are located in Edward Russ Hall.

The College High School is located to the north and east of College Hall. It contains offices, an assembly room, a gymnasium, a library, domestic science rooms, classrooms for the high school students, and conference rooms for college students.

A second athletic field was completed in the spring of 1938. It provides a football field, a running track, and a baseball field. Concrete bleachers line the east side of the football field and running track, furnishing ample seating for spectators.

Recently a small recreation building has been completed on the campus. This is used for club meetings, recreation courses, and similar functions.

In cooperation with the Federal Works Agency the College has erected the following temporary buildings on the campus:

FWA Building No. 1, containing offices and classrooms.

FWA Building No. 2, containing offices and classrooms.

FWA Building No. 3, containing offices classrooms, and science laboratories.

FWA Building No. 4, containing offices, classrooms, and music rehearsal rooms.

The Federal Public Housing Administration has provided a temporary men's dormitory on the campus with accommodations for about fifty men. The building contains double rooms, bathrooms, showers, and washrooms.

The Federal Public Housing Administration and the New Jersey State Department of Economic Development have erected on the campus eighteen temporary buildings containing thirty-nine apartments for married students. Most of these apartments contain a living room, kitchen, bathroom, and two bedrooms. Some are furnished.

Expenses

General Expenses for Regular College Year of approximately 37 weeks

The tuition fee for residents of the State of New Jersey is \$100 a year.

The tuition fee for non-residents is \$10 per semester-hour of credit.

The Student Government Association fee is \$22 a year.

The laboratory service charge is \$4.00 a semester for each laboratory course.

The health and recreation service charge is \$2.00 per semester.

The registration fee is \$1.00 per semester.

The cost of textbooks ranges from \$20 to \$30 a year.

The service charge for late registration is \$2.00.

A service charge is charged for individual instruction for students taking their major or minor in music.

The tuition fee is payable in two installments, one-half in September and one

half in January. The student fees and service charges are also payable in two installments, one-half in September and one-half in January.

These charges are subject to revision.

Living Expenses for Regular Year

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The charge for board and room in dormitories is \$499.50 for the regular college year of approximately 37 weeks. This charge is subject to change due to variations in living costs.

Payments are made as follows:

\$135.00 on or before registration in September.

\$114.75 on or before November 1.

\$135.00 on or before registration in February.

\$114.75 on or before April 1.

Women students who plan to live in dormitories should consult the Dean of Women or make written application. Men students should make application to the Dean of Men. If at any time dormitory accommodations are not available, lists of approved accommodations in private homes will be provided. When dormitory vacancies occur, it is understood that students living in private homes will transfer to fill such vacancies.

Accommodations for Married Students

Charges for apartments are approximately \$42.00 per month unfurnished or \$48.00 per month furnished. These accommodations are only for full-time students, and application should be made to the Housing Committee.

Student Supply Store

The store aims to supply such books and materials as are in continual demand by the student body and faculty.

Cafeteria

Lunches are served in the cafeteria at cost prices for all students who are not regular boarding hall students. It is under the same management as the Edward Russ dining room.

Gifts

A generous gift of money from the late Edward Russ has enabled the school to place on its walls many photographs of men eminent in science, philosophy, education, and public affairs, as well as several reproductions of the masterpieces of great artists. At his death Mr. Russ bequeathed a substantial sum of money which has taken permanent form in the building of Edward Russ Hall.

Many other gifts have been presented by normal school and college classes, graduates, and friends. These are now serving a variety of purposes in the College Hall, dormitories, College High School, and on the campus. They are

highly prized by the students and faculty as expressions of the good will and generosity of the donors.

Scholarships and Loans

See Financial Adjustments—Page 35.

Admissions

Admission requirements are arranged for three groups of students: those entering the freshman class; those entering with advanced undergraduate credits; and those entering the Graduate Division.

I. Admission to the Freshman Class

Students who are undecided as to whether they should enter the teaching profession are invited to come to the College for personal interviews. All candidates for the freshman class should file their applications with the Registrar before April 1st of the year in which they wish to take the entrance examinations.

- A. Requirements for Admission as adopted by the State Board of Education.
 - 1. Entrance Examinations
 All applicants for admission to the freshman class shall take examinations prepared under the direction of the Commissioner of Education.
 - Eligibility for Taking Entrance Examinations
 To be eligible to take the entrance examinations for admission an applicant shall furnish the following credentials on the appropriate forms obtainable from the office of the Registrar.
 - a. Age certification A statement of the place and date of birth. Applicants shall be at least fifteen years nine months old before taking the entrance examinations.
 - b. Health report A report from the family physician concerning the student's condition of health. This report shall be made on a form furnished by the College.
 - c. Testimonial of character A testimonial of good moral character from responsible persons not related by blood or marriage to the applicant on a form furnished by the College.
 - d. High School rating A rating of the student's character and probable fitness to succeed in college courses. This rating shall be made by the officials of the applicant's secondary school on a form furnished by the College.
 - e. Certificate of graduation A certificate showing graduation from the twelfth grade of an approved secondary school or showing that the applicant is scheduled for graduation during the current scholastic year. The units to be accepted for admission to the College are prescribed by the Commissioner of Education as follows:

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merican History and Problems of Democracy	
ience	
Iditional Social Studies Science Language or Mathematics	
ee Flectives	
Dicetives	
Total 16	
reign Language	

- (1) Upon recommendation of the high school principal concerned substitutions for the units listed above may be made for an applicant who is in the highest quarter of his graduating class. When a request for a substitution of this kind is made, it will be considered by a special committee consisting of the head of the major department concerned, the Director of Admissions, and the Dean of Instruction. If the above named committee recommends that a substitution be made, the recommendation will be referred to the President of the College for a final decision.
- (2) Candidates for the Social Business and Accounting Curriculum may substitute two units of work in these subjects for the Language entrance requirement.

f. Filing official transcripts of graduation
Applicants who have not filed an official and complete transcript showing
graduation from high school before the date of the entrance examinations
shall do so before registration in the College.

3. Physical Examination

At entrance all candidates must be examined by a physician selected by the College to determine whether they are free from any disease or infirmity which would unfit them for teaching; and an examination by this physician may be required of any student at any time in his course, to determine whether his physical condition warrants his continuance in the College.

The State also requires all students to submit evidence each year of freedom from tuberculosis. The College endeavors to provide suitable tests each year

for the student at a minimum of expense.

B. High School Prerequisites for College Majors and Minors.

The major and minor fields of interest that are offered students by the College are discussed under College Curricula (Page 37 and following). The College recommends that students include in their high school credits at entrance the number of units indicated in the following table for the subjects in which they intend to specialize:

	High School Units Recommended
Majors	
Business Education	1 to 2
English	4
French, Latin, or Spanish	2 to 4
**Health, Physical Education, and Recreation	1
Mathematics	3½ to 4
Music	1 to 2
Science	1 to 3
Social Studies	2 to 3

	High School Units Recommended
Minors	
Accounting	1
Biology	1
English	4
French, Latin, or Spanish	2 to 4
Geography	1
Mathematics	3 to 4

Music	1
**Physical Education	1
Physical Science	
**Recreation	1
*Social Business	1
Social Studies	2 to 3
Speech	1

^{*}A minor in Social Business with a minor in Accounting constitutes a major in Business Education. While there are no prerequisites for this work, courses in shorthand and typing are recommended. See page 59 for details.

II. Admission to the Sophomore, Junior, or Senior Class

A limited number of students may be admitted with advanced standing. To be eligible, a candidate must have had at least a year of college work. The acceptance of such a candidate is dependent upon his scholarship, as evidenced by the credentials submitted, personal fitness, and the possible number of vacancies in the class for which he is eligible. Definite acceptance of candidates for advanced standing cannot be made long in advance for any given semester. Students wishing to apply for admission on advanced standing should write for the necessary form of application to the Registrar, State Teachers College, Upper Montclair, New Jersey.

III. Admission to the Graduate Division

Application blanks for admission to graduate work may be secured from the Chairman of the Graduate Committee.

Official transcripts of all undergraduate work must accompany the written application. No action is taken until such transcripts are received.

Upon receipt of the application blank and the transcripts of undergraduate work, the student is asked to have personal conferences with the department adviser of the department in which he wishes to major, and with the Chairman of the Graduate Committee. These conferences are a prerequisite to the action of the committee on admission. The student is notified in writing as to whether or not he has been accepted.

For more complete information see the Graduate Bulletin.

Placement Bureau

See the Department of Professional Integration, Page 51.

The Alumni Association

All graduates of Montclair are members of the Alumni Association and active members if they pay dues. Association officers, with the advice of other members and Faculty members of the College, plan yearly the schedule of events to which all graduates and their guests are invited. Alumni are notified once at the

^{**}A minor in Physical Education and Recreation, combined with requirements in Health, constitutes the equivalent of a major in Physical Education, Health, and Recreation. See page 147 for details.

beginning of the year, and active members are notified again before each event takes place.

The Association strives to establish and continue lasting friendships and contacts of both social and professional natures among its members and between graduates and the College.

NUMBER OF GRADUATES

Normal School Diplomas—3,921

A.B. Degrees-3,890

A.M. Degrees-954

ALUMNI OFFICERS, 1950-1951

President	George Dukes, '36
Vice-President DOROTHY	SCHROEDER LEHMKUHL, '42
Corresponding Secretary	Doris Silver Ullmann, '44
Recording Secretary	Irene Ehrmann, '40
Treasurer	Albert Hunter, '47
Assistant Treasurer	Anthony Caruso, '47
Resident Alumni-Secretary	BARBARA BIRD, '48

ADMINISTRATIVE ORGANIZATION

The College is organized for administrative purposes into three divisions: business administration, instructional administration, and personnel administration. These divisions are under the direction of the President of the College and the Administrative Council in cooperation with the faculty.

Business Division

The business division has charge of financial matters such as appropriations, receipts, expenditures, inventories, audits, and reports. This division also superintends buildings and grounds, and food service operations.

Students pay their tuition and fees at the Business Office.

Instructional Division

The instructional division centers its interests in curricula, teaching materials, teaching and supervisory programs, and teaching procedures. The Dean of Instruction is assisted by the Registrar, the heads of departments, the librarians, instructional committees, and general staff.

Students who wish advice or help in matters related to courses, programs of studies, advanced standing, instructional procedures, and scholastic clubs consult the Dean of Instruction, the Registrar, department heads, and staff advisers.

Matters pertaining to records, reports, credits, and schedules are discussed with the Registrar.

Personnel Division

The personnel division has the responsibility of promoting the physical health, mental health, work habits, and social life of all students. The following staff members are engaged in personnel work: Director of Personnel and Guidance, physical education instructors, college physician, college nurse, mental hygiene instructors, research director, Dean of Women, Dean of Men, Veterans' Counselor, dormitory hostesses, and staff and student advisers.

The personnel division endeavors to become familiar with the abilities, interests, and needs of all students through personal interviews, counseling, keeping records, and providing for adequate personal service.

LIBRARY

A library of 60,000 volumes is conveniently situated on the main floor of College Hall. This includes the following special collections: the Howe Collection of Organ Music; the Mark Andrews Music Library; the Webster Memorial Collection of Modern Poetry; the Finley Collection of Science Textbooks, which has been augmented by early textbooks from other sources; and the Carnegie Secondary Art Set of books and pictures. The library has many books on modern art and reproductions of modern paintings. In addition, a Textbook Exhibit of more than 4,000 volumes on both the elementary and the secondary school levels, and a collection of Courses of Study from states, counties, towns, and cities throughout the country are available to teachers-in-training as well as to teachers-in-service.

Approximately 300 periodicals are received currently. The library maintains files of pictures, pamphlets, and clippings, classified by subject. All of its holdings, with the exception of the Webster Memorial Collection, are available for loan to members of the faculty and the student body, and to graduates and former students.

NEW TOOLS FOR LEARNING BUREAU

The New Tools for Learning Bureau is a service bureau of the College which emphasizes non-verbal and non-traditional techniques of learning. Some of the *tools* are *new* only in the sense that they are new to the persons who use them. They are non-verbal only in the sense that words are regarded as secondary rather than primary tools of learning.

The Bureau functions through three divisions:

(1) The Audio-Visual Aids Service supplies films, film-strips, slides, recordings, and transcriptions to students and teachers in the College and to teachers in the field through its film and record library and by rental from established agencies. It cooperates with the Sound Studio of the Department of Speech in the recording and circulation of programs originating here or taken from the air.

- (2) The Teaching Aids Service supplies to students and teachers printed materials collected from industrial, business, governmental, and social agencies. There is a lending library of these materials and also a constantly changing collection of items for free distribution. A comprehensive card file of instructional aids is maintained. Fifteen classified bibliographies of this material have been published and are available at low cost. A consultation service on all types of instructional aids is also offered.
- (3) The Bureau of Field Studies offers six educational travel courses covering all parts of the United States. They are described on pages 126, 138, 139, and 140. Social Studies 302, Field Studies in Urban Life, is required of the social studies majors in their junior year. The other field studies courses are elective for three points each of undergraduate or graduate credit, except for Social Studies 462, Continental United States, which yields ten credits. Social Studies 460, Social Studies 461, and Social Studies 462 are offered in successive years. Social Studies 463 is usually offered during the Christmas holidays. Social Studies 302 and Social Studies 459 are offered during the College year. The Bureau of Field Studies has published four booklets which are available at a nominal price to students, teachers, and administrators. The titles are: "Field Studies in Schools and Colleges," "Field Studies in a Teachers College," "Field Studies in Certain New Jersey Secondary Schools," and "A Bibliography for Field Studies in Schools and Colleges."

NEW JERSEY STATE SCHOOL OF CONSERVATION

The six State Teachers Colleges, the State Department of Education, and the State Department of Conservation and Economic Development jointly operate the New Jersey State School of Conservation at Lake Wapalanne in Stokes Forest, Sussex County. Courses offered include field studies in biological sciences, field studies in physical sciences, conservation of forests and wild life, conservation of soils and water, field geography, water safety and first aid, camping education, rural sociology, and related subjects.

The facilities at Lake Wapalanne are unusually good. The camp buildings were constructed by the Civilian Conservation Corps and include a dining hall, an infirmary, an administration building, an assembly-recreation-library building, a staff lodge, bath-houses, latrines, and twelve living cabins.

Descriptions of course offerings at the New Jersey State School of Conservation are contained in special announcements which may be had from the New Jersey State Teachers College at Montclair.

THE GRADUATE DIVISION

Graduate courses were first offered at the State Teachers College at Moncclair in the summer term of 1932 and have been offered in all regular and summer sessions since. In order that the work may be available to teachers and administrators in service, the courses are scheduled during the academic year in the late afternoons, evenings, and on Saturdays. The courses are given by the

members of the college staff and are granted residence credit; thus, it is possible for teachers in service to earn a master's degree without taking a leave of absence from their teaching positions. That the College is advantageously located for such work is shown by the fact that the majority of the high school teachers of the State are within a radius of twenty-five miles of the campus.

From the time graduate courses were instituted there has been an enthusiastic response to the work. There are now more than five hundred students matriculated for the graduate degree. Among the institutions of higher learning from which these matriculants come are: Barnard, Colby, Colgate, Columbia, Drew, Duke, Lafayette, Mount Holyoke, New Jersey College for Women, New York University, Oberlin, Pennsylvania, Princeton, Radcliffe, Rutgers, Smith, Stevens, Syracuse, Tufts, and Wellesley.

The work is organized to care for two groups of graduate students: those who are teaching and wish to take courses in the late afternoons, evenings, and on Saturday mornings, and those who wish to do full-time resident work. It is also organized for two types of students as regards previous preparation; graduates of liberal arts colleges, and graduates of teacher-training colleges. Many of the education courses required for certification in the State of New Jersey can be taken on the graduate level. The number of credits so earned which may be applied on the A.M. degree, of necessity, varies according to the graduate requirements in the various graduate major areas of specialization. Inasmuch as no graduate credit is given for supervised student-teaching, graduate students from liberal arts colleges, as a rule, spend a college year and a summer term to meet State requirements for certification and the conferment of the master's degree. The time required depends upon the character and amount of undergraduate credits.

Majors in graduate work are offered in the fields of Administration and Supervision, Biology, Business Education, English, Mathematics, Personnel and Guidance, Physical Science, Science, and Social Studies. In each curriculum there is a core of educational courses and major subject-matter courses. The amount of each type of work depends on the candidate's undergraduate work and is determined by the Graduate Committee. The curricula in Administration and Supervision and in Personnel and Guidance are limited largely to specialized professional courses in order to meet State certification requirements.

For admission requirements, see Page 22.

Students interested in this work are advised to write to the Chairman of Graduate Committee for a bulletin.

OFFERINGS FOR TEACHERS IN SERVICE

There are hundreds of teachers seeking educational courses needed for thei professional growth and advancement. In response to actual demand fror teachers in the field, part-time, extension, and summer session courses were firs offered on the undergraduate level. In 1932, the number of graduate student applying for courses became so great that it seemed necessary to offer graduat

courses leading to a Master of Arts degree. For further information consult the Bulletin of the Graduate Division.

The College now offers senior-graduate and graduate courses on campus during the late afternoon, evening, and Saturday morning, and off campus in various centers, for the convenience of those desiring professional growth through these means. Summer sessions are also maintained.

Part-Time and Extension Courses

Part-time courses, carrying residence credit, for students unable to attend the College during the regular full-time daily program-hours, are offered on the campus on Tuesday and Thursday afternoons, from 4:15 to 6:00 p. m.; on Tuesday and Thursday evenings from 7:15 to 9:00 p.m.; and on Saturday mornings from 8:45 to 12:30 p. m.

Courses of the Extension Division are offered off-campus in any community in New Jersey in which the teachers-in-service desire the New Jersey State Teachers College at Montclair to offer a particular course and if that course appears in either the Undergraduate Catalog or the Graduate Bulletin of the College. It is necessary that twenty or more students enroll in such an Extension course.

Bulletins are published for the information of those who wish to attend parttime or extension courses. Courses which meet for one two-hour session a week for sixteen weeks receive two semester-hours' credit. Credits gained in part-time and extension courses are accepted toward a degree or a secondary teacher's certificate. Only those students should register who are willing to meet the full requirements and take all examinations. Permission may be granted in special cases for students to take work for no credit. Other information, including bulletins, may be obtained from the Secretary of the Part-Time and Extension Division, State Teachers College, Upper Montclair, New Jersey.

Summer Session

Those who are eligible for admission to the summer session are: (1) elementary, junior, and senior high school teachers; (2) undergraduate and graduate students of liberal arts colleges seeking secondary certificates; (3) graduate students seeking the Master's degree; (4) experienced teachers seeking administrator's and supervisor's certificates; (5) graduates of the two and three-year normal school courses who are working for a Bachelor of Arts degree; (6) normal school, teachers college, and liberal arts college students who have been permitted to meet certain requirements through summer session courses; (7) laymen who may wish to take certain courses because of their cultural interests; and (8) high school graduates.

The summer session is attended by approximately six hundred students, representing about seventy-five teachers colleges, liberal arts colleges, and universities located in many states. Of these, somewhat fewer than one-quarter are undergraduate students; approximately eighty per cent hold bachelor's de-

grees; and about five per cent hold master's degrees. Because of the preponderance of graduate students a minimum of undergraduate courses are offered in the summer session.

The summer session begins the first week of July and extends over a period of six weeks. For other information, including bulletins of the summer session, address the Secretary of the Summer Session, State Teachers College, Upper Montclair, New Jersey.

The Laboratory School

See The Laboratory School-Page 40.

Part II

STUDENT PERSONNEL AND ACTIVITIES STUDENT INTERESTS AND ACTIVITIES

Orientation and Guidance of Freshmen

During the first week of the college year, freshman students report for examinations, organization meetings, social functions, athletics, conferences, and instructions. The personnel division of the College is active in gaining necessary information, in preparing reports, and in furnishing guidance. The Student Government Association is active in its cooperation. It explains and discusses various student clubs, privileges, and responsibilities. Staff members meet the new students for personal interviews, and during the semester group meetings are held with advisers. In general, Freshman Week is a time for orientation, adjustments, guidance, instructions, examinations, and social contacts.

General Citizenship

A spirit of readiness to understand objectives and to assume responsibilities grows out of Freshman Week. Each student realizes that he has become part of a State enterprise and of an active group of professional workers. Social and professional consciousness begins to take the place of individual motives.

From the first day each student is expected to make definite contributions to the welfare of his associates and to the life of the College. In fact, any student who cannot demonstrate initiative and leadership through cooperation and service should not train for the profession of teaching.

Student Organizations

Students have initiated and organized councils, clubs, associations, and committees that are rendering a great variety of service which is of a worthy character. The Student Government Association is the central organization in general control of students' extra-curricular activities. It is made up of representatives from the student body and faculty, and takes as its responsibility the promotion of scholarship, culture, professional zeal, social and physical welfare, extra-curricular activities, and the general conduct of the student body.

The Student Government Association, its committees and allied organizations, through their aims, spirit, and accomplishments, commend themselves to the faculty and the profession. Naturally, there are many ways in which the students and their organizations express their ideas of service, though at present their principal organized activities may be listed as follows:

Agora (Men's Organization) Aldornia (Honorary English Club) Aphesteon (Honorary Mathematics Club) Bridge Club Bureau of Student Publications Cercle Français Cheerleaders Chess Club Choir Chorus Circolo Italiano Clio (Social Studies Women's Club) Commuters' Club Creative Writing Club Dalphac (Women's Organization) Dance Club Epsilon Mu Epsilon (Business Education Forum (Men's Discussion Club) Future Teachers of America Geography Club Intercultural Relations Group

International Relations Club

Inter Nos (Classical Language Club)

Intervarsity Christian Fellowship Kappa Delta Pi (National Honorary Society in Education) Men in Music Men's Athletic Association Orchestra Phi Lambda Pi (Men's Organization) Photography Club Pi Omega Pi, Beta Sigma Chapter (National Honorary Business Education So-Players Pro Musica (Honorary Music Society) Psychology Club Rohwec (Honorary Social Studies Club) Rostrum (Co-ed Debating and Discussion Group) Science Club Senate Sigma Delta Pi (Women's Organization) Sigma Phi Mu (General Mathematics Club) Spanish Club

Tribe (Men's Varsity Athletic Club)

Women's Athletic Association

Zeta Phi (Speech Playhouse)

The work of the Student Government Association, its committees and organizations, includes such activities as-follows:

Preparation and presentation of college and high school assemblies.

Establishment and maintenance of college publications, including newspaper, hand

book, magazine, and yearbook.

Study of the social needs of the College and methods of providing for them properly and adequately.

Participation in the supervision of athletics.

Promotion of the scholarship standards of sections or classes.

The chartering of college clubs.

Supervision of the bulletin board and student announcements.

Assistance in matters of student employment and general student aid.

Assistance in maintaining favorable working conditions throughout the College.

Reception and entertainment of visitors and delegations.

Collection of data and preparation of reports relative to college enterprises and their management.

Representation of the College at meetings of various organizations and the furnishing of speakers for high school assemblies.

Promotion of college clubs and organizations.

Provision for a financing system which adequately serves all worthy college enter-

Cooperation in scheduling events and activities on the campus.

Participation in granting awards and recognitions.

Music and Art

Cultural background courses in music and art are required of all students. In addition, music electives and the musical organizations of the College provide opportunities for further study in fields of special interests. For requirements for a major or minor in music, see page 100.

The musical organizations of the College include:

The a cappella choir and Women's Glee Club
 The Symphony Orchestra
 The Band
 The Music Workshop including various types of vocal and instrumental ensembles

5. The Opera Workshop.

Sunday evening concerts are given throughout the school year by guest artists, music faculty, and advanced music students.

Because of the proximity of New York City, the College is able to offer unusually fine opportunities in music. Field trips are frequently made to the Metropolitan Opera, the New York Philharmonic Orchestra, and Town Hall concerts.

The Art Workshop gives all students an opportunity to work creatively with various artistic media—oil paints, water colors, block prints, pastels, clay, plaster, and stone. The Workshop includes a ceramic studio complete with potters' wheels, kilns, and a glaze laboratory.

Frequent field trips are taken to art museums in New York City and the metropolitan area.

Dramatics

Work in dramatics is varied and comprehensive. In the classroom dramatic literature is studied in historical perspective, as an art-form and as a mirror of social institutions. The production of high school and college plays is studied and practiced in technical courses in which instruction in acting, stage-craft, make-up, lighting, costumes, and directing may be obtained.

Players, an undergraduate club, sponsors two major productions a year. Use of the auditorium of the College High School as a Little Theatre enables Players to present repeated performances of each production. This invaluable experience in the solution of problems facing the high school dramatics coach is available to any student in the entire college. Players also sponsors an annual Drama Day at which the dramatic organizations of high schools are invited to present their work for professional criticism.

The amphitheatre affords an ideal setting for assemblies, festivals, dance recitals, pageants, and plays adapted for the outdoor theatre.

Assembly Programs

During the year a series of assembly programs is offered for the cultural benefit of the students and faculty. These programs include presentations by outside artists, student recitals and dramatizations, and student government meetings. These assembly programs are an important part of the college offering for students, and students are expected to participate regularly.

Student Exchange with French and Spanish-Speaking Countries

The College has prepared a program of teacher training in the field of modern foreign languages. After successful completion of the prerequisite years of high school French or Spanish, language study is continued at Montclair in classes conducted entirely in French or Spanish. If the student has shown promising aptitude in his foreign language work during his freshman, sophomore, and junior years, he may be offered the opportunity to study abroad for a year in some foreign teachers college or university, under Montclair auspices.

During periods of uncertainty abroad, students have gone to Canada, Mexico, and South America.

During the year of study abroad, these Montclair students follow a comprehensive program of work, including classes in language, literature, history, art, music, psychology, etc., working with their French or Spanish-speaking classmates, submitting to the same kind of discipline, enjoying their pleasures, and experiencing their daily routine. In addition to scholarly achievement that cannot be equaled by any amount of classroom work in college, this year of study gives students a broad outlook on life, a sympathetic attitude toward the problems of other peoples, and an understanding of world citizenship—in fact, a life experience that is bound to make them better teachers of foreign languages for American high school boys and girls.

College Athletics

The College provides three athletic fields, one play field, and four tennis courts, two gymnasiums, and other facilities for promoting recreational activities. The principal sports for men normally include football, basketball, baseball, track and field, golf and tennis. College varsity teams in football, basketball, baseball, tennis, track, golf, and wrestling maintain in normal years full schedules with colleges located in five eastern states and the District of Columbia. The College junior teams play scheduled games within the State. Intramural athletics are promoted.

The women's athletic activities include volley ball, hockey, basketball, softball, tennis, and archery. These sports are organized and managed by the Women's Athletic Association, a very active undergraduate organization. Competition is intramural, with sport days and invitation games providing variety and added interest. The Modern Dance Club, while not an athletic activity, is an important part of the women's activity program.

Publications

The Student Handbook supplies instructions, Student Government Association rules, descriptions of organizations, songs, cheers, and other matter of special value to new students.

The Montclarion, the student news publication, covers a variety of subjects of special interest to students. It is published semi-monthly.

The Montclair Quarterly is the student literary magazine published by the student body.

La Campana, the college annual, is published each year by the Senior Class and contains general information of special value to graduates and their friends.

The College High Crier, student newspaper in the College High School, affords college students an opportunity to learn advisership through working with the young high school editors.

La Campanilla, the yearbook of College High School, is sponsored and published by the senior class of College High School.

Publications of the Bureau of Field Studies include pamphlets and leaflets describing field studies.

Publications of the Teaching Aids Service of the College Library include lists of audio-visual aids in many subject matter fields.

Dormitory Life

Dormitory students have opportunities for social activities, entertainments, and athletics. These activities are promoted by the Dean of Women, the Dean of Men, the Director of Personnel and Guidance, the dormitory hostesses, the faculty, and the Inter-Dormitory Council.

The regulations governing dormitory life are made through the cooperation of the dormitory councils, the Dean of Women, the Dean of Men, and the dormitory hostesses. These regulations cover such matters as study hours, weekend permissions, social activities, guests, schedule of meals, care of rooms, care of the sick, and chaperonage.

STUDENT PERSONNEL ADJUSTMENTS

The accomplishments of individual students depend upon their energy, adaptability, and general personal fitness. Therefore, the College invests profitably in promoting the physical health, emotional stability, and social attitudes and habits of all students.

Physical Health

The State Teachers College is located on an elevation in clean, open country. The campus furnishes adequate facilities for healthful outdoor exercises, and the two gymnasiums provide for physical education, indoor sports, and dances.

The College employs during the fall and spring semesters one full time physician, one part time physician, and three resident nurses who give the students thorough physical examinations and advise them in regard to medical attention and correction of defects. The College conducts an annual tuberculosis program with chest X-rays of students and other College personnel. An annual physical examination by the College physician is required of all students. The health of the dormitory students is guarded with special care. Infirmaries are maintained in Edward Russ Hall and in Chapin Hall under the supervision of the college physician. The Dean of Women, the Dean of Men, the Director of Personnel and Guidance, and physical education instructors advise concerning health facilities and conditions. During the entire year, including the summer months, a full time nurse lives in the dormitory in order that she may serve dormitory students and oversee the general health conditions of all students. A voluntary Medical Reimbursement Insurance policy is available to students at \$6.00 per semester to help pay hospital and surgical bills incurred as a result of illness or injury.

Mental Health

In the freshman year the course in Mental Hygiene and Personal Adjustment serves to provide for group discussion of problems of personal and professional orientation to college life.

Students are responsible to their advisers for individual conferences. Advisers are free to formulate and carry out their own plans for serving individual and group needs of students assigned to them.

The student advisory and guidance program is extended so that it reaches the whole student body. All students are encouraged to make contacts with staff members in an informal fashion so that they may profit from a more personal relationship than that of the more formal classroom association. Special problems of adjustment which arise from time to time are referred to the psychology and mental hygiene staff. Students who are in need of medical and psychiatric assistance are aided in obtaining proper diagnosis and treatment. It is desirable that students avail themselves of the opportunities offered by such types of service.

An organized sequence of courses is planned for graduate students who wish to prepare for guidance work in junior and senior high schools. A master's degree in Guidance is granted to students who complete this work satisfactorily. Full descriptions of courses may be found in the Graduate Bulletin.

Social Activities

A varied program of social activities is promoted by the college clubs, classes, personnel department, and general staff. Each activity is approved and directed by the Dean of Women because of its social and recreational value. A few of the activities which are normally traditional are listed below.

Three all-college dances are sponsored by the Student Government Association each year and two by each class. The sophomores give a dance for the freshmen at the end of Orientation Week. Dances are also sponsored by the dormitories as well as several other organizations.

The various clubs and associations hold banquets each year. The Thanks-giving and Christmas dinners in the dormitories are festive occasions.

Athletic events for men include scheduled games and matches with outside teams. Sport days are sponsored by the Women's Athletic Association.

The musical organizations present several programs each year, including the Christmas and Easter programs and the annual concerts during the spring.

The Dance Club is composed of a group interested in the dance as an art form. Participation is based upon selection of candidates by members after a special tryout. Members work on techniques which give control and suppleness so that their bodies may be used as instruments with which to express ideas and emotions in the creating of dances. During the year the Club sponsors events such as a visiting professional group or artist, a symposium, lecture-demonstrations, and concerts on campus and elsewhere by club members.

There are many other events occuring from time to time, such as the spring

festival of the language department, the Mardi Gras of the language department, and the special events of Commencement Week.

Scholastic Adjustments

Lack of scholastic adjustment may be due to physical health or emotional instability, and in either case should be understood and remedied. There may be other cases where individual students need scholastic guidance. It is not uncommon for students' subject-matter interests to change and for students to require transferral from one course to another or from one department to another. Furthermore, students are sometimes troubled by their ratings and schedules, and frequently the matter of study habits demands careful analysis and directed training. Various types of adjustments may be made in classroom situations by providing a better understanding of troublesome problems and thereby relieving tension. All problems of adjustment are considered in the spirit of helpfulness.

Financial Adjustments

The College is not prepared to render financial help in every case where help is needed. Yet it is in a position to assist many of those who are particularly deserving. Assistance is commonly rendered through loans and student employment.

Work Scholarship Funds

The State offers deserving students the opportunity to do socially desirable work of such a nature as may be provided in the college library, laboratories, and offices. These scholarships cover tuition.

Chapin Memorial Fund

This fund was established by the Alumni Association in honor of the late Dr. Charles Sumner Chapin, Principal of Montclair State Normal School. It is incorporated under the direction of a board of trustees. Loans are made principally to upper class students and always on the basis of the candidate's personal and scholastic fitness for the profession of teaching, as well as the candidate's financial need.

Applications for loans are made through the office of the Dean of Women. Each loan must be secured by at least one property owner. The total amount of the fund is approximately \$12,500.

Scholarships

A few scholarships are granted to students of marked personal fitness and of accomplishments in special fields. Candidates for scholarships are recommended by their high school principals.

John C. Stone Scholarship

This fund was established by the Alumni Association in memory of the late Professor John C. Stone. It amounts to \$1,600, and the proceeds are to be used as a scholarship for Mathematics majors.

Margaret B. Holz Foundation

This fund was established by college students who have studied abroad for at least one year under the direction of the Foreign Language Department. The exchange student movement at Montclair was conceived and developed by the late Professor Margaret B. Holz, and it was in her memory that the fund of \$3,000 was created. The proceeds of the fund provide financial assistance to those members of the Modern Foreign Language Department who need financial aid in order to study abroad.

Field Studies Fund

This fund was established by Dr. Harold S. Sloan, a professor at the College from September 1929 to June 1936. The interest on an investment of \$10,000 is used for the development of the work of the Bureau of Field Studies.

State Scholarships

The state legislature awards annually to the State Teachers Colleges a number of scholarships not to exceed ten per cent of the number of beginning students.

Those students who are applying for admission to a State Teachers College and who wish to compete for a scholarship are invited to write to the President of the College to which they are applying for admission and request a scholarship application blank.

Edward Russ Scholarship Fund

This fund was established from the residue of the estate of the late Edward Russ. It amounts to \$20,000, the proceeds of which are used to assist deserving students who, through scholarship and personal fitness, offer assurance that they will make especially valuable contributions to the profession of teaching.

Clarence O. S. Howe Memorial Organ Fund

This fund provides two organ scholarships a year.

Grace M. Freeman Grants

These grants provide scholarships for highly deserving students in financial need.

Student Employment

The financial condition in many homes has changed considerably in the past few years. The College wishes to cooperate with worthy students who earnestly desire to follow through the four-year college course. This is often done by affording to students an opportunity to participate in various types of work on campus or to render service in private homes near the campus. Opportunities for such work are arranged through the offices of the Dean of Women and the Director of Personnel and Guidance.

Part III

THE COLLEGE CURRICULA

FUNDAMENTAL PRINCIPLES

The content, organization, and instructional procedures of the various curricula and courses are guided by the following principles:

- (1) The definite objective of a professional college makes certain requirements necessary, yet in so far as practicable the special interests of individual students should be recognized.
- (2) After the major and minor fields of specialization have been chosen, there should be comparatively little opportunity for free elections.
- (3) Each curriculum should provide a basis of required background courses and professional activities.
- (4) Each curriculum should provide for an understanding of the aims and organization of secondary education and for guidance and skill in selecting, organizing, and presenting instructional materials.
- (5) Each curriculum designed to prepare secondary school teachers should make adequate provision for specialization.
- (6) Subject-matter should be treated professionally.
- (7) The courses and activities in a given curriculum should be sequential and integrated.
- (8) Courses should be broadly humanizing and should be related to what takes place in society and what is done in school.
- (9) The demonstration school should be the laboratory and integrating center of all courses and all curricula.
- (10) General educational theories and techniques shuld be exemplified in regular class instruction and frequently demonstrated in the laboratory school.
- (11) The relative value of the elements of the profesional instruction should be checked by the strengths and weaknesses of the college product.
- (12) The curricula and courses of the College are the servants of a changing society, and therefore should be subject to continual adjustment.

The above principles are recognized by the staff as basic to the organization and development of the college curricula. They have directed and unified the work of the staff in its selection, organization, and treatment of curriculum materials.

Students should recognize that a professional school has, by its very nature, definite aims and objectives, and therefore practical reasons for preparing and requiring certain fundamental types of work. Such requirements are characteristic of professional schools generally. It is, however, the purpose of the College to recognize the interests and aptitudes of individual students and to be guided by these, provided that they do not lead to haphazard and unsystematic selections and procedures.

The instructional work of each curriculum is divided into three areas: (1) professional background; (2) professional integration; (3) professional subject matter. Each of these areas is described in the paragraphs which follow.

GENERAL ORGANIZATION OF INSTRUCTION

The organization of the College for instructional purposes is in accordance with the Principles numbered 4 to 11, as stated on the first pages of Part I of this catalog.

Relations to the Schools of the State

The college staff recognizes its relationship to the junior and senior high schools which it serves. The following contacts are maintained:

Close relationships are maintained with the State Department of Education through its Commissioner of Education and Assistant Commissioners.

The State Director of Teacher Education is in continual contact with the officers and directors of secondary education and with the College.

Frequent conferences on problems of secondary education are held on the campus. a. General conferences with city and county superintendents, supervising principals, and junior and senior high school principals.

b. Conferences with high school executives devoted to special problems in the

secondary fields.

Department conferences with heads of departments and teachers in the respective fields.

The College collects and analyzes curricula which are administered in the various

high schools in the State.

The College has contacts with various junior and senior high schools through its supervisors of student-teaching and through the representatives of various subject-matter departments.

The College contacts the secondary schools and becomes familiar with their needs

through its Placement Bureau and follow-up service.

The College cooperates with various secondary school officials and agencies in making research studies.

Principals, heads of departments, and teachers visit college classes and classes in the College High School from time to time.

FIELDS OF INSTRUCTION

The general instructional division of the College has three well-established functions. The first is to provide each student with a rich background. The second is to provide professional subject-matter which includes ample margins of scholarship. The third is to provide professional theories and techniques and their application in student-teaching. Each of these three departments of the instructional division is discussed briefly in the following paragraphs.

Professional-Cultural Background

Every teacher who is to recognize and use the many-sided interests of a normal high school pupil must have a broad philosophy of life and a human interest in the life-experiences of youth in present-day society. Furthermore, every teacher who is to specialize in a field of knowledge which is somewhat narrow should be familiar with the interests, activities, and problems of present-day society as they are related to the subject-matter of his field of specialization. In order to meet these professional needs the College requires that every student, regardless of major and minor fields of specialization, do two things. First, he must become familiar with the social, political, economic, industrial, scientific, religious, literary, and aesthetic phases of life. Second, this background of culture

should be a body of related and well-assimilated knowledge rather than a collection of isolated parts. In other words, the interdependence of each of the phases of life mentioned above should be recognized and made meaningful.

The professional-cultural background courses comprise nearly one-third of the total college requirements for graduation. The specific requirements may be found in Part III under the heading of Professional Background Requirements.

Professional Subject-Matter

Professional subject-matter refers particularly to courses in the student's major and minor fields of specialization. It is thought of as departmental specialization built upon the related and fundamental body of knowledge which has been called professional background.

Every high school teacher should have thorough command of the subject-matter in his special fields of instruction. This subject-matter does not include merely the bare requirements for the prescribed work in high schools. It does include such scholarship as will stimulate a true intellectual curiosity and provide for rich margins of knowledge.

Each student is required to complete a minimum of thirty semester-hours in his major field of interest in addition to the units required of all students and eighteen semester-hours in his minor field of interest. It has been the policy of the College since its organization in 1927 to recognize that its professional duty as a teachers college is to treat its subject-matter professionally, that is, to provide not only for an academic knowledge of subject-matter but also a teaching knowledge of that same subject-matter. A teaching knowledge requires an understanding of the way in which subject-matter is to be organized for teaching purposes and how it may be presented to the best advantage under varying conditions to high school students.

Department of Professional Integration

The prospective secondary school teacher should have not only an adequate cultural background and a thorough teaching knowledge of subject-matter in his special fields, but also a teaching knowledge of adolescent pupils and an understanding both of the processes involved in their instruction and of the part played by education in contemporary society.

The fact that the techniques used in the professional treatment of subject-matter cannot be divorced from the subject-matter itself makes it apparent that there must be a close relationship between the subject-matter departments and the department responsible for training in the theories and methods of education. (See also Part III for descriptions of courses.)

In addition to providing the Placement Bureau (described on page 51) this department has various functions. It offers courses in the psychology and philosophy of secondary education, in various techniques and methods of teaching, and in the principles of administration of both elementary and secondary schools. Fourteen semester-hours of work in this department are required of

each student, besides ten semester-hours for student teaching, two semester-hours for health education, and three semester-hours for a special methods course in the student's major field.

In the present emergency due to increasing enrollments and teacher shortages in the elementary schools, additional courses in elementary-school teaching are required of most students. These courses lead toward a limited elementary-school teaching certificate. They serve two purposes: to prepare the student for possible elementary-school teaching in the present emergency, and to give him a fuller understanding of both the background of high school pupils and the work of the entire public school system.

Observation of classes in the College High School is required of students throughout the four years of their college course, beginning with directed observation in the freshman year, and ending with an intensive program of observations in the student's major subject, closely coordinated with the course in methods of teaching his major subject.

Twelve weeks of student-teaching in a public school are required of each student. This experience is planned and arranged by the Department of Professional Integration, and supervised by members of the department and of the student's department of major interest.

THE LABORATORY SCHOOL

The College High School

The College High School occupies a modern building well equipped for regular classes and the special subjects and activities of a high school. It was established and is now maintained for the purpose of providing demonstration, observation, and experimentation as a part of the professional education of teachers for New Jersey secondary schools.

It is administered and supervised by a staff whose members have proved their ability to recognize and meet the needs of the public secondary schools as well as the various departments in the College. The laboratory school has no separate staff. The heads of the subject-matter departments in the College are also heads of departments in the high school. These departmental heads and other members of the college staff teach the high school classes for demonstration, general observation, and experimental research. Observations by college classes and by individual college students are planned and directed by staff members who teach both college and high school classes.

A few of the special features of such a school may be listed as follows. It is the laboratory in which:

Educational theories, principles, and policies are integrated with the practice in the classroom.

Constant effort is made to develop improved courses of study, extra-curricular activities, testing programs, and guidance programs for the public secondary schools of New Jersey.

Theories, methods, and materials are tested.

Experimentation is carried on for the purpose of improving methods of teach-

ing and adjusting secondary school procedures to social change.

Prospective teachers study children of adolescent age.

College teachers who are responsible for the professional preparation of secondary school teachers come in contact with personnel and classroom problems in the secondary school.

An opportunity is provided for the continuous observations of masterful teaching. Prospective teachers become familiar with the aims and organization of high school education, including its administration and supervisory procedures.

Prospective teachers are given an opportunity to participate in carrying forward the responsibilities of teaching.

There are approximately 3,000 student-hour observations in the College High School each month.

CREDITS AND STANDARDS

Credits

The College is organized on the semester basis. A semester-hour is to be interpreted as work done in the classroom for one hour a week during a period of eighteen weeks. The average student load for any one semester is sixteen semester-hours of prepared work a week. Thirty-two semester-hour credits should be earned during each college year. One hundred and twenty-eight semester-hour credits are required for graduation. Permission to carry more than the customary amount of work a week is granted only to those who have demonstrated marked ability. It is definitely understood that students are retained in the College only so long as they do satisfactory work.

Rating System

Marks indicating degrees of achievement in the various courses are given in letters, A, B, C, D, and F.

A-Excellent

B-Good

C-Fair

D-Poor

F-Failure

Inc.—Incomplete work

Wd.-Withdrawal from the class

Where a student has had an unavoidable absence, or for reasons approved by the instructor, a course may be marked "Incomplete" at the end of a semester. This mark must be removed by a final grade within six weeks or the course cannot be credited and the mark becomes "F."

Degree and Certificate

After satisfactory completion of all requirements for graduation the degree of Bachelor of Arts is granted.

The graduate of the New Jersey State Teachers College at Montclair is granted a Limited Secondary Certificate. Those graduates who complete courses

prescribed by the State Board of Education are also granted a Limited Elementary Certificate.

WEIGHTED SCORES

For purposes of striking averages and obtaining rankings, marks receive the following weighted scores for a semester-hour: A, +4; B, +3; C, +2; D, +1; F, -1.

Scholastic Honors

Students graduating with point averages of 3.45 or better for all undergraduate courses completed at Montclair are recognized as honor students with the following designations:

Average of 3.45 — 3.64—cum laude Average of 3.65 — 3.84—magna cum laude Average of 3.85 — 4.0 —summa cum laude

Requirements for Graduation and Bachelor of Arts Degree

A major requiring a minimum of thirty semester-hours.

A minor requiring a minimum of eighteen semester-hours.

(For a minor in either English or Social Studies twelve semester-hours of work are required beyond the regular cultural background courses. For a minor in Science, fifteen semester-hours of work are required beyond the regular cultural background courses.)

Additional credits in required and elective work to total one hundred and twenty-eight semester-hours.

At least two years of work in physical education.

A minimum of two semesters of resident work.

A minimum of 150 clock-hours of student-teaching to satisfy the State requirement.

Scholastic Standards

In addition to the completion of such courses as may be prescribed, students must have an average weighted score per semester-hour of work taken in the College as follows:

a.	Students admitted as freshmen	2.0
Ь.	Students admitted as sophomores	2.13
C	Students admitted as juniors and seniors	2.25

PROFESSIONAL BACKGROUND COURSES

The professional objectives of these cultural courses have been discussed in this bulletin. The courses included in this division are required of all students and amount to nearly one-third of the total semester-hour requirement for graduation.

A cultural background should be a broad, well-unified body of knowledge. In accordance with the principle of integration, the greater part of the work in this department is organized into large units of instruction. For instance, Civilization and Citizenship is based upon present-day problems, and includes a carefully articulated study of the social, political, economic, industrial, religious, scientific, literary, and aesthetic phases of contemporary civilization. The problems of contemporary civilization are used as the fundamental motives for studying the history of civilization from the days of the Egyptians down to the present time. The study of the whole span of civilization is attempted for the purpose of showing how other ages have met with similar problems and how through the ages these problems have developed. This unit has been organized by the Departments of Social Studies, English, Science, Geography, and Integration, and is given by these various departments working together. Throughout this course departmental boundaries and barriers are broken down, in order that related subject-matter may become a unified body of knowledge. Such an effort to bring subject-matter into its natural relationships should be beneficial to prospective teachers who have need for broad understandings, clear meanings, and balanced judgments.

A second large unit of work centers about the literary and aesthetic needs and interests of civilization.

It should be noted that the courses in *Civilization and Citizenship* and *World Literature* parallel each other and are closely articulated and integrated.

The other smaller units of work such as Foundations of Language and Survey of Science do not follow a chronological order with the same degree of precision. However, the development in these fields parallels the larger units in Social Studies and English.

GROUP I. Social Studies

SOCIAL STUDIES 100A. Civilization and Citizenship

The major object of this course is to arouse in the student a vital awareness that all the varied fields of human knowledge which make up the college curriculum function in the social life—the civilization—of which we are all a part. A survey is made of great cultural epochs through which man has passed; the Egyptian, Greek, Roman, and Medieval. Their chief institutional problems—economic, political, family, religious, educational, aesthetic—are considered in the light of our own times. In this way a background is set up for the consideration of our modern world, and of the problems of today with which the course started.

Credit: 3 semester-hours

SOCIAL STUDIES 100B. Civilization and Citizenship

This course carries to completion the problems set up by the preceding course, but with the modern world as the main theme. A study is made of the transformation of a culture and of the changes brought about by the Renaissance, by the Protestant Reformation, by the Commercial Revolution, and, finally, by the Industrial Revolution and the emergence of the industrial society of our world today. It is intended that this course be a preparation for and provide a setting for the courses in contemporary problems given in the sophomore year.

Credit: 3 semester-hours

SOCIAL STUDIES 200A. Contemporary Economic Life

This course acquaints the student with the basic nature of economic life, points out the opposing economic doctrines in force in various parts of the world, and investigates the functionings of economic life both here and abroad. Case studies from current newspapers and periodicals are made the basis of this course.

Credit: 2 semester-hours

SOCIAL STUDIES 200B. Contemporary Political Life

The emphasis in this course is placed upon current American national government and politics. It aims to give the student a firm grasp of the principles and problems relating to the citizen and the government (obligations and rights), the citizens and political machinery (suffrage and the party), the States and the United States (changing nature of the federal system), and the mechanism of government (executive, administrative, legislative, and judicial).

Credit: 2 semester-hours

SOCIAL STUDIES 200C. Contemporary Social Life

This course is designed to create in prospective teachers an awareness of the tensions in the community and their effects upon pupils and the school. The student is given guidance in dealing with social issues and in discovering the constructive community forces which may be used by teachers.

Credit: 2 semester-hours

GROUP II. Literature, Language, Art, and Music

There are six units required in this group. These units are concerned (1) with furnishing materials of background and critical principles that insure a knowledge of the great masters of the literature of the world, an appreciation of the literary forms which they created, and a feeling for the best in modern life and thought as expressed in literature, and (2) with developing the power of communication in speech and writing.

ENGLISH 100A and 100B. World Literature: Its Forms and Its Masters

The purpose of these courses is to acquaint students with the great literature of the western world. This is done by supplementing the cultural-epochs approach of the Civilization and Citizenship, Music Appreciation, and Art Appre-

ciation courses. The great literature of the western world receives major attention: Hebrew, Greek, Roman, Medieval, and Renaissance. As discussion permits, excursions are made into the literature of other cultures: Egyptian, Arabian, Indian, and Chinese. Parallels are constantly drawn between the past and the present in the literatures of Europe and America.

Credit: 3 semester-hours each

ENGLISH 200A. Composition

This course is designed to help the student improve his ability in writing so that he may understand and fulfill the requirements of the College in the organization and presentation of written materials. Exposition is stressed in order to provide practice in the fundamentals of effective organization. Outlining, handling of research and source materials, and general organization of term papers are introduced. An approved handbook of college level serves as a basis for the mechanics of the course.

Credit: 3 semester-hours

ENGLISH 200B. Fundamentals of Speech

This basic course is designed to help the prospective teacher to improve his ability in speaking. Effective voice production and clear, pleasing diction are developed through speech activities. The work of the course is adapted to the individual needs of the students as revealed by phonograph recordings and diagnostic tests.

Credit: 3 semester-hours

LANGUAGE 300. Foundations of Language

The purpose of this course is to give every student, as a prospective high school teacher, (1) a survey of the background, growth, and structure of the English language from its Indo-European origin to modern times, (2) an introduction to the science of linguistics, (3) an appreciation of several foreign language patterns, and (4) a rich fund of information in the field of general language.

Credit: 2 semester-hours

ART 100. History and Appreciation of Art

The aim of this course is twofold: first, to study the art of each epoch as the expression of its typical beliefs and attitudes; and second, to enable the student to utilize his capacity for sensitive awareness and active response to visual experience in daily life as well as with formal media. In relating art and the spirit of each age, the work of the course is integrated with the study of historical epochs in the survey courses in *World Literature* and in *Civilization and Citizenship*. Laboratory exercises in creative art work are designed to give the student first-hand experience with the expressive means of the artist. Visits to the museums and galleries in the metropolitan area are part of the course work.

Credit: 1 semester-hour

MUSIC 100. Music Appreciation

This course helps the student to discover music for himself and to use it as a vital force in life enrichment. Emphasis is placed upon stimulating the enjoy-

ment of music rather than building up a body of facts about it. By means of performance by the instructor and students, and directed listening to recorded music and to the radio, the student is acquainted with masterpieces of music which should be the possession of every cultured person. This course meets two hours weekly and is credited on a laboratory basis.

Credit: 1 semester-hour

GROUP III. Science

As his cultural background work in science, the student surveys the earth sciences (100C), either physical science (100A), or biology (100B), and hygiene and health.

SCIENCE 100A. Survey of Physical Science

This course deals with the basic scientific discoveries which have created present-day activities in the fields of astronomy, atomic energy, and meteorology. The social, economic, and educational consequences of these discoveries and the industries growing out of them are treated in such detail as to be of service to prospective teachers of social studies, English, languages, and other high school subjects.

Credit: 4 semester-hours

SCIENCE 100B. Survey of Biology

The organization and behavior of plants and animals are treated in a manner devised to develop understanding of man's structure and behavior. Mechanisms of heredity and evolutionary change are considered. An understanding of how a balance may be achieved among living things is developed to show desirable land use and good agricultural and forest practices. Class lectures and discussions are supplemented with lantern slides, moving pictures, laboratory experiments, and field trips.

Credit: 4 semester-hours

SCIENCE 100C. The Earth Sciences

Land forms and water bodies are treated from the standpoint of origin and evolution, and, together with the atmosphere, are considered in relation to their influence upon life and activities. The laboratory work consists of the study of topographic maps, models, and other methods of illustration. This course affords excellent background for all courses in geography.

Credit: 2 semester-hours

HEALTH EDUCATION 100. Healthful Living

The purpose of this course is to aid the student in achieving and maintaining optimum health and to understand the principles on which it is founded. Among the topics covered are: grooming, nutrition and weight control, the effects of alcohol and narcotics, marriage and parenthood, and the community aspects of health.

Credit: 2 semester-hours

REQUIRED PHYSICAL EDUCATION—Men and Women

Two hours a week of physical education for two years are required of every student. These requirements must be completed in the freshman and sophomore years, except by special arrangement. As wide a variety as possible of team, dual, and individual sports is included in the program. Dancing is offered for women.

GROUP IV. Mathematics

MATHEMATICS 300. The Social and Commercial Uses of Mathematics

Some of the topics treated are: review of fundamental operations, approximate computation, use of slide rule and computing devices, graphs and scale drawing, percentage, simple and compound interest, consumer credit and installment buying, savings and investment, mortgages, taxation, insurance, cost of housing, and budgeting. Commercial, industrial, and consumer applications are stressed.

Credit: 2 semester-hours

MATHEMATICS 400. Educational Statistics

The aim of this course is to prepare the student (1) to comprehend and criticize articles of statistical nature in current educational literature; (2) to apply statistical methods in testing and rating pupils; (3) to carry on the simpler types of educational research. By analysis of real data from the secondary field, the student becomes familiar with the measures of central tendency and variability, short methods of computation, graphic representation of material, the properties of the normal curve, and linear correlation. Inasmuch as statistical methods in education are almost identical with those employed in the natural, physical, and social sciences, there is natural integration with these fields.

Credit: 2 semester-hours

GROUP V. Humanities

Students are given the opportunity to elect courses in the Humanities in fields such as English, music, and language. The following courses do not belong to the major departments of the College, but are offered to enable students to broaden their outlook through art appreciation and studio work in the fine arts.

ART 405. Art in the Metropolitan Community

This course gives to teachers in the various subject-matter fields an appreciation of the art resources of the major museums in Montclair, Newark, and New York; of art dealers' exhibitions in New York, and of industrial art products. This course emphasizes both the cultural value of this material and its educational use in specific courses. Slides, other illustrative material, and field trips are employed.

Credit: 2 semester-hours

ART 406. Studio Workshop for Secondary Teachers

This course offers practice in the use of the commoner media for students who wish to employ the creative visual arts in the teaching of other subjects. Students are encouraged to work out projects definitely related to the various subject-matter fields of the demonstration high school and of the college; and to the exploration of the various media as a means of personal expression and of increased sensitiveness to art.

Credit: 2 semester-hours

ART 408. Creative Painting

This course gives the student an opportunity to use the materials of the painter for personal creative experience. Oils, water colors, and pastels are used. The student is encouraged to work in landscape, figure, and free imaginative composition. No previous experience is necessary.

Credit: 2 semester-hours

ART 412. Pageant of Spanish-American Art

In this course art is treated as a cultural document. Illustrated lectures aim at an appreciation of the cultures of Spanish-America through contact with their rich artistic past and present. Three periods of development are studied: Pre-Columbian Cultures (Aztec, Mayan, and Inca), Period of Spanish Colonization, and Period of Independence. The course concludes with a survey of twentieth-century Mexican art. Museums and galleries of the metropolitan area are visited.

Credit: 2 semester-hours

ART 413. Art in American Life

A survey is made of activity in the design arts from the early Colonial period to the present in relation to the course of development of the American community. Articles of use and reproductive media such as photography and the graphic arts are discussed, as well as painting, sculpture, and architecture. Slides and classroom exhibitions of material discussed are used in the course.

Credit: 2 semester-hours

ART. 414. History of Chinese Art

In this course the developments and distinguishing characteristics of the major arts of China are traced by specialists and are surveyed from the point of view of their historical developments. There are twenty-four hours of lectures in the morning, and round-table discussion and library work in the afternoon. During the afternoon workshop period the technique of Chinese painting is demonstrated and taught by the noted Chinese artist, Professor Ya Chin Wang, whose paintings have been exhibited in the Metropolitan Museum of New York and other art centers in this country. No prerequisites are required.

Credit: 3 semester-hours

THE DEPARTMENT OF PROFESSIONAL INTEGRATION

Since the function of the College is educational, it is hardly justifiable to single out one department as the Department of Education. There is needed, however, a group of workers who will integrate the work of the entire College by coordinating all the professional aspects of teaching such as subject-matter, teaching techniques, observation, and student-teaching. This responsibility for the integration of all the college interests is delegated to the Department of Professional Integration. The agencies in this department which carry out this work are: the courses in Integration, the College High School, the student-teaching program, and the placement and professional adjustment services. The work of these agencies transcends all departmental lines; the special interests and functions of any one department contribute to the professional aims of the institution which are broader in scope and purpose than those of any of the subdivisions of the College.

Since the only purpose of the College is professional, departmental aims are identical or similar. Hence the aims of the Department of Professional Integration are not exclusively its own. Its chief and particular function, however, is to assist and to give leadership in the following ways:

(1) It helps the prospective teacher to take an intelligent and active part in his own personal and professional orientation.

(2) It arouses an awareness of the possibilities of the profession of teaching as an opportunity to invest one's interests and powers in promoting the social good.

(3) It gives an understanding of both elementary-school and high-school students,

their natures, interests, and needs.

(4) It provides for a gradual induction into the profession of teaching by means of a carefully arranged sequence of education courses, by observation of and participation in school classwork.

(5) It directs the student as he becomes an active and responsible teacher in the

student-teaching program.

(6) It provides an analysis of the student-teaching experiences.

(7) It aids in coordinating the work of the college departments through its integrating functions.

(8) It provides training which will aid the student in taking an active part in the extra-curricular life of the school and in community life.

(9) It gives a forward look into the profession so that it shall not be regarded as a

stepping stone, but as a vocation worthy of a life work. The department not only promotes the professional aspect through its

materials and organization, but supplements the work of professionalization of all the departments.

Organization and Activities

The required courses in professional integration have been designed to give a survey of the essentials of the professional aspects of teaching. Five points of view are emphasized: the sociological, the biological, the psychological, the pedagogical or technical, and the philosophical. Although in a given semester course only one or two of these fields receive special emphasis, the content is not limited to them. There is rather the attempt throughout to conduct an integrated treatment of professional problems.

Special attention has been given to the sequence of the required courses and to the units within courses. In so far as it is administratively possible and expedient, courses in education parallel those in other departments. In this way the various departmental courses reinforce and supplement each other.

In the organization of all courses the needs of society and the needs and interests of the students are considered. Content material is taught, not as detached from the student's everyday world, but as part of his professional life in pre-service training. Both logical and psychological organizations are utilized,

the former for completeness and unity, the latter for vitality.

The work in psychology includes some opportunity for first-hand observation of children and adolescents in their homes, on the playground and in other out-of-school settings, and in school. The aim is to acquaint the student, through any means available, with stages in normal development from infancy through adolescence. An effort is made to build an understanding of what is involved in the psychological development of the individual and a basic understanding of the needs of children and adolescents together with some insight into the resources through which these needs may be satisfied. Special emphasis is given to the particular problems encountered in school situations.

Observation and participation in the College High School occupy a large place in the courses in educational integration. It is through personal contact with actual school conditions that students are led to understand the meaning of educational theory. Observation is begun in the freshman year and continued throughout the four years. In the early years this work is elementary in nature but as the student advances, more complex aspects of the problems of teaching are observed and analyzed. In the end he comes in contact with all phases of teaching. In the junior year some of the departments follow a form of participation in which students assist the instructors of the College High School in the classroom.

Immediately preceding the work in student-teaching offered in the senior year, a course in the principles and philosophy of secondary education is given. The major purpose of this course is to study with the student those basic and fundamental principles that should guide our secondary schools. Each student is encouraged to work out his own philosophy of life and of education.

STUDENT-TEACHING

The plan of student-teaching which the College carries out is based upon the principle of internship. At the beginning of the second semester the seniors leave the campus and take up the work of teaching in the schools of New Jersey. Each student is assigned to an experienced public school teacher, under whose guidance he observes, participates, and teaches. He spends the first week in observation and participation, then gradually takes over teaching responsibilities—one class, then two, then three. For the last nine weeks of the period he has full responsibility for three classes a day. Homeroom guidance, club work, student council meetings, and all the extra-classroom activities which round out the program of the modern public school are a part of his privileges and responsibilities.

The student returns from this experience with a new point of view and a new spirit. He has actual knowledge of the responsibilities of the teacher; his perspective is broadened; he has begun the development of his teaching skills; and he has a new insight into the psychology of the growing child.

The student-teaching period is followed by six weeks on the campus of intensive study of the practical problems of teaching. The practice in teaching provides a background for the interpretation of educational theory.

Supervision of Student-Teaching

During the twelve weeks of practice the student is frequently visited at work by members of the college faculty—representatives of the subject-matter departments and the Department of Integration. Individual and group conferences, and other approved supervisory techniques are employed in the improvement of teaching ability.

At the half-way point in the practice period the students return to the campus for a day's conference. General discussion, group meetings, and individual consultation with the staff members afford an opportunity for clearing up problems and difficulties which the students have encountered in the field.

Placement and Professional Adjustment Service

Since the Department of Professional Integration is responsible for the administration of the student-teaching program, its close contact with the various public schools of the State makes it the logical department to direct the work of placement of graduates. The Placement Bureau serves two purposes: helping the graduates of the College to secure positions suitable to their training and abilities; and, by so doing, cooperating with school authorities who are seeking to fill teaching and administrative positions. Because of its relationship with the Department of Professional Integration, the Bureau is able to provide definite and reliable information relative to the training, experience, and personal fitness of candidates. It arranges for personal interviews and for observation of candidates in teaching situations.

Credentials for every graduate of the College are compiled from class records, reports on student-teaching, and from information secured by consultation with heads of departments, the Registrar, faculty counselors, supervisors of student-teaching, members of the personnel division, and others who may be informed as to special aptitudes and activities.

In order to fulfill its obligations to both employers and prospective teachers, the Bureau requests complete information about vacancies to be filled. It assumes important responsibilities to the teacher, to the individual school, and to public education as a whole.

Courses numbered INTEGRATION 100, 200A, 200B, 300A, 300B, 400A, 400B, and 403, are required of all students; courses numbered otherwise are elective.

THE FIRST YEAR

The course in the first year of College is especially designed to help the student gain insights into his own personality and to develop resources within himself which should be of value when he becomes involved primarily in attempts to understand and to help others. It stresses the mental hygiene aspects of personality and develops some of the basic concepts which are necessary for the beginner in the field of psychology.

INTEGRATION 100. Mental Hygiene and Personal Adjustment

The course in mental hygiene and personal adjustment offers an accumulation of suggestions from psychological, biological, sociological, and educational literature which the college student may use in building his personality with the facilities available on the campus. Problems of human relationships and general orientation in college and in life are discussed.

Credit: 2 semester-hours

THE SECOND YEAR

Psychological Aspects of Education

INTEGRATION 200A. Child Growth and Development

This course covers the essentials of growth and development from the psychological and the educational points of view. It includes all aspects and stages of development from early infancy to adolescence. Stress is placed on firsthand observations of children in home, school, and play situations and elsewhere. Evaluation of materials gathered through such observations furnishes part of the material for discussion.

Credit: 2 semester-hours

INTEGRATION 200B. Adolescent Psychology and Mental Hygiene

This course stresses: (1) the development and growth of the normal adolescent; (2) problems which are related to normal development as they are met in school and elsewhere; (3) problems which occur because of deviations in any aspect of development—physical, mental, emotional, social, moral; (4) some techniques for understanding and dealing with this age group.

Credit: 2 semester-hours

THE THIRD YEAR

Pedagogical and Technical Aspects of Education

The major purposes of the courses concerning the secondary school given in the junior year are: to acquaint the student with the factors that have influenced the evolution of the secondary school in America; to lead him to recognize its potentialities in developing a dynamic social order; and to help him to appreciate the part the teacher in this division of the school must have in realizing the ultimate goal of education. Basic issues common to contemporary life are ex-

amined to discover what the secondary school must do to meet the needs and requirements placed upon it.

In this division the practical phases of the secondary school are examined to give the student an understanding of its internal organization and of the specific part the teacher occupies in it. In the first semester the historical background of the development of secondary education in this country and European countries is studied. This is followed by a study of the modern high school with particular reference to the town and city schools of New Jersey. The second course deals with the principles and techniques of teaching. Observation occupies a vital place in these courses.

INTEGRATION 300A. Aims and Organization of Secondary Education

The content of this course may be summarized in the following topics: (1) nature and function of the American secondary school; (2) historical development of secondary education in the United States; (3) organization of administrative units; (4) secondary education in other lands; (5) the students; (6) the program of studies and activities; (7) the staff; (8) buildings, grounds, and equipment; (9) cost and support of education; and (10) the secondary school as a social and economic instrument.

Credit: 2 semester-hours

INTEGRATION 300B. Principles and Techniques of Teaching in the Secondary School

The purpose of this course is to help each student: (1) to acquire a knowledge of general and specific techniques and the basic principles involved in their utilization; (2) to acquire initial skill in selecting and preparing materials and in manipulating tools and instruments which will be utilized in vitalizing instruction; (3) to study the problems and techniques of effective instructional planning. Activities: reading and discussion of case studies and other professional literature dealing with current problems and practices, directed observation in the College High School, exploring courses of study, learning to operate and use various mechanical teaching aids, and preparing both a unit and a daily lesson plan.

Credit: 2 semester-hours

INTEGRATION 301. Training in the Use of Teaching Aids

The student is given general orientation in the field of instructional aids. He works in the New Tools for Learning Bureau, as an apprentice, and in this way receives intensive training in the use of all types of teaching aids. There is one scheduled class hour per week, and the student is expected to put in two additional hours each week in assigned work in the projection rooms or workshop. This course affords good preparation for positions requiring training in audio-visual techniques.

Credit: 2 semester-hours

THE FOURTH YEAR

Philosophical Aspects of Education

Students come to these courses with a background in their special fields of study, in psychology, and in techniques of teaching. The professional background courses have provided an opportunity to examine and appreciate the cultures of various civilizations. The purpose of the fourth-year course is to unify these experiences and to help the students discover for themselves a working philosophy of life.

INTEGRATION 400A. Principles and Philosophy of Secondary Education

This course evaluates educational objectives, techniques, procedures, and organizations in relation to the needs and demands made upon the school by society and by the student. It aims to help the student develop an adequate philosophy of life and of education.

Credit: 2 semester-hours

INTEGRATION 403. Supervised Student Teaching

Every student graduating from the New Jersey State Teachers College at Montclair completes twelve weeks of student teaching in the schools of New Jersey. At the beginning of the second semester the seniors leave the campus and take up this important assignment. Guidance is given by a good teacher in the cooperating school, and by supervisors from the College who come to observe the work. A more complete description is given on page 51 of this catalog.

Credit: 10 semester-hours

INTEGRATION 400B. Practicum in Secondary Education

This course follows student-teaching. It makes use of the teaching problems encountered by the students in the preceding twelve weeks, as well as similar problems reported by students in former years. In the manner of the clinic, cases are analyzed and diagnosed, and solutions are worked out. Examples of extraordinarily effective teaching procedure are similarly discussed.

Credit: 2 semester-hours

OTHER COURSES IN EDUCATIONAL INTEGRATION

General Aspects of Education

The following courses are elective. They cover various phases of education and supplement the work already described. Electives are offered in the junior senior, and graduate years only.

INTEGRATION 406. Educational Sociology

This course deals with the application of sociological principles to educational problems. The school is treated as a part of the community, and the various social forces that affect the school and its administration are considered. The following

topics are included: family backgrounds, community organization, social breakdown, socialized classroom methods, and the social approach to individual behavior difficulties.

Credit: 2 semester-hours

INTEGRATION 408. Selection and Utilization of Audio-Visual Materials

Sources, selection, and evaluation of audio-visual aids are studied in this course. Techniques in developing individual reference catalogs of audio-visual aids are stressed. The production of school-made aids is also an important aspect of the course. The use of the latest audio-visual equipment is demonstrated.

Credit: 2 semester-hours

INTEGRATION 409. Radio and Sound Equipment in the Classroom

This course trains teachers and school executives in the use of radio programs, amplifying systems, recording equipment, and record players. Actual practice is given in the use of these educational aids. Problems of script-writing, microphone and recording techniques, and program directing are considered. The class visits radio stations for equipment and program observation. Each student develops a teaching unit using radio or sound equipment to vary, vitalize, and improve educational practices.

Credit: 2 semester-hours

INTEGRATION 410. Teaching Materials Workshop

This course is for those persons who wish to study advanced problems in the utilization and administration of audio-visual materials. Individual research is stressed, and there is an opportunity to work out individual projects. Such problems as budget requirements, administrative set-up, establishment of film libraries, etc., are emphasized. It is assumed that the student will have taken Integration 408 or will have had the equivalent in practical experiences.

Credit: 2 semester-hours

INTEGRATION 430. Techniques for Improving Reading Abilities

This course deals with the diagnosis and remedial treatment of difficulties in reading. A study is made of the basic principles underlying desirable reading experiences and their application in guiding children to success in learning to read adequately.

Credit: 2 semester-hours

INTEGRATION 440. Camping Education

The purpose of this course is to familiarize the students with camping and outdoor education as educational methods utilized by the schools of America. The aims and methods of camping are studied, and consideration is given to the communities that have active camping and outdoor education programs in operation. The course also helps prepare the student for a position in summer camps. This course is usually given at the New Jersey State School of Conservation, Stokes State Forest.

Credit: 2 semester-hours

INTEGRATION 441. Conservation Education

The social, economic, and scientific implications of conservation are considered in this course. Discussion periods are interspersed with field trips to forest areas and demonstrations of conservation problems. Outside experts are employed to bring special contributions in their fields. Visual aids are used extensively in this course. This course is usually given at the New Jersey State School of Conservation, Stokes State Forest.

Credit: 2 semester-hours

INTEGRATION 442. Practicum in Camp Leadership

In this course the student has an opportunity to learn the techniques of camp leadership through practical experience, guided group study, and discussion. The practical experience comes through serving as a camp counselor in an actual camp situation. During this practical experience there are regular discussion sessions and assigned readings which help the student to gain a background of knowledge to help deal with the practical problems as they arise.

Credit: 2 semester-hours

INTEGRATION E460. Public School Program of Studies

This title is given to a group of courses designed to meet requests from public school systems desiring help in curriculum reconstruction. Each of the parts of this general course is given on a cooperative intercollege basis, and taught by specialists in the various fields selected from the faculties of the cooperating State Teachers Colleges. Certificates of credit are issued by the college sponsoring the work.

Part I. 460A—Principles of Curriculum Revision

Part II. 460B—Workshop in Curriculum Revision

Part III. 460C—Organization and Evaluation of Curricula

Part IV. 460D—The Social Studies Program of Studies

Part V. 460E—The Language Arts Program of Studies

Part VI. 460F—The Science and Mathematics Program of Studies

These cooperative inter-college courses are provided only when the requests from the public school authorities of the county, municipality, or community are such as to require their use. No undergraduate may elect these courses unless he is actively engaged in teaching.

Credit for each part: 2 semester-hours

ELEMENTARY EDUCATION COURSES

Although the New Jersey State Teachers College at Montclair is engaged primarily in preparing secondary school teachers, during the present shortage of teachers in the elementary schools it is deemed expedient to offer courses in the field of elementary education for the undergraduates of the college leading toward certification to teach in these schools.

INTEGRATION 471. Principles and Practices of Elementary Education

This course is intended for students who already have a considerable subjectmatter background in the fields of social studies, science, and mathematics. The course covers the principles and techniques for teaching these subjects in the elementary grades with special emphasis on the correlation of subject-matter and providing for the maturity level of the pupils.

Credit: 2 semester-hours

INTEGRATION 472. Elementary School Curriculum

This course acquaints the College student with the subject-matter of the elementary school curriculum for grades 3-6 inclusive. In addition, the following are studied: (1) correlation among subjects, (2) the appraisal and use of textbooks, (3) the use of visual aids, (4) the methods adapted to each subject, and (5) use of course of study materials.

Credit: 2 semester-hours

INTEGRATION 473. Elementary School Language Arts

This course gives an overview of modern practices that are used in teaching reading, creative writing, speaking, spelling, and handwriting in the elementary grades. Students are helped to recognize and to make provision for readiness for learning in these areas, to learn or devise various techniques that will meet the needs of different children and situations, and to evaluate, select, and create suitable materials to be used at various maturity levels. Special emphasis is placed on the functional use of the language arts in the total curriculum and life of the elementary school child.

Credit: 2 semester-hours

INTEGRATION 474. Elementary School Arts and Crafts

This course provides a wide range of creative manipulative experience with the materials, tools, and techniques of art work in the elementary school and an insight into significant art work of children of various age levels. Work is done in crayon, paint, chalk, clay, wood, papier-mache, finger paints, and other easily accessible materials. The work of the course includes simple weaving, block prints, murals, and the making of puppets. Attention throughout is directed toward an insight into the significance of art work and of manipulative experience as a medium of expression and a means of growth for the child.

Credit: 2 semester-hours

INTEGRATION 475A. Fundamentals of Elementary School Music

The elements of music, including notation, the formation of scales and various modes, key and clef signatures, Italian musical terms, abbreviations, rhythm, and intervals are included in this course. The student should acquire the ability to write a simple melody from dictation and to read at sight any part in a simple three-part selection in a musician-like manner. Ability to carry a tune is necessary for success in this course.

Credit: 2 semester-hours

INTEGRATION 475B. Teaching Elementary School Music

This course is designed for students who are either music majors or music minors or who have an acceptable background in music. It deals primarily with the materials needed in elementary school music and applies the skills of persons who know music in the teaching of these materials. Students who are not accomplished in the musical field should enroll for Integration 475A as a prerequisite for this course.

Credit: 2 semester-hours

INTEGRATION 476. Elementary School Health and Physical Education

The purpose of this course is to induct the prospective elementary classroom teacher into the field of health and physical education. Such phases as state courses of study, selection and organization of materials, grading, class organization, and others are discussed. To give the student a more functional approach, the programs of surrounding communities are studied.

Credit: 2 semester-hours

INTEGRATION 477. Elementary School Mathematics

This course includes a study of the development of the number concept in young children, the problem of number readiness, and an analysis of the various number skills. Consideration is given to the development of methods of presenting the units of elementary mathematics to children. Emphasis is placed on the meaningful use of the fundamental operations with integers, fractions, decimals, and problem solving. Experience is given to students in effective methods of lesson planning, testing, and diagnostic and remedial work.

Credit: 2 semester-hours

INTEGRATION 478. Elementary School Science

This course is based upon the assumption that science teaching in the elementary school should include scientific inquiry at the child's level as well as scientific information. Specific methods and materials are developed to meet these purposes. Emphasis is placed upon using the school community, learning through activity, and integrating science with other subject-matter areas.

Credit: 2 semester-hours

INTEGRATION 479. Elementary School Social Studies

This course is designed to familiarize the student with the materials and methods for teaching man's relation to his environment and other human beings in the elementary grades. The integration of the various phases of social living with other subjects, grade placement of subject-matter, the source and use of visual aids, and student projects are all stressed.

Credit: 2 semester-hours

PROFESSIONAL SUBJECT-MATTER COURSES

Fields of Specialization

Professional subject-matter courses offer opportunities for students to major in the Departments of Business Education, English, Languages, Mathematics,

Music, Physical Education-Health-and-Recreation, Science, Social Studies, and Speech, and to minor in the fields of Accounting, Biological Science, Physical Science, English, Geography, Languages, Mathematics, Music, Physical Education, Recreation, Social Business Studies, Social Studies, and Speech. The minimum requirement for a major is thirty semester-hours. The minimum requirement for a minor is eighteen semester-hours. Electivese may be used outside the major and minor fields of interest, thereby increasing the areas of certification.

THE DEPARTMENT OF BUSINESS EDUCATION

In the past, the training of a business education teacher included training in the traditional areas of bookkeeping and accounting, secretarial studies, and certain social-business studies. More recently, the broad field of commercial or business education has embraced in addition to the traditional areas the fields of office machines and clerical practice, as well as training in merchandising, salesmanship, and other distributive education courses. In view of these expanded fields of activity, it has been generally accepted that the training of a business education teacher might be limited to one or two of these specialized fields. The Department of Business Education, following this philosophy, aims to train teachers for the junior and senior high schools in the fields of bookkeeping and accounting, and social business (including some offerings in merchandising, salesmanship, and other distributive education courses). This gives the prospective business education teacher the opportunity to obtain a more complete specialized training within the broader field of business education.

The demand for the practical work of business education on the high school level has always been large. Many high school students are preparing to enter business or industry, and a large percentage of them do enter business and industry with the initial training the high school can give them. As a result, there is a demand for well-prepared business education teachers or for teachers who are equipped to teach combinations of courses in the field of

business education and in other fields of secondary education.

The Department of Business Education offers a major in bookkeeping and accounting and social-business studies. In addition, it offers to students majoring in other subjects a minor in either or both of these specialized fields. The sequence of the required and elective work of the Department has been carefully planned.

The elective courses offer additional background and supplementary materials of value to the teacher.

The classroom work of every course in the Department is outlined with two definite objectives in mind: to provide the student with a thorough knowledge of subject-matter, and to provide information and materials for teaching the subject-matter to high school students.

For a major in bookkeeping and accounting and social-business studies, the following courses are required: Business Education 101, 102, 201A, 201B, 202, 201, 202, 401, 402, 404, 407A, 410A, 1,410B

301, 302, 401, 402, 404, 407A, 410A, and 410B.

For a minor in bookkeeping and accounting, the following courses are required: Business Education 101, 202, 301, 302, and 404.

Both the major and the bookkeeping and accounting minor require ten weeks (400 hours) of practical business experience for certification. A special form for recording this experience should be obtained from the Business Education Department.

Also required for majors in business education are seventy-two observations of classroom teaching. The details concerning these observations are explained

on a separate assignment sheet furnished by the Department.

For a minor in social-business, the following courses are required: Business Education 101, 102, 201A, 201B, 402, and 404.

Interesting extra-curricular programs and opportunities for leadership are provided by the Department. Epsilon Mu Epsilon is the general business education club with membership open to all majors and minors. This is the larger organization which carries on a dual group of informational and social activities. The Montclair Chapter, Beta Sigma, of Pi Omega Pi, the National Honorary Business Education Society, invites students to membership on the basis of scholarship and leadership. The aims and programs of this organization are such that membership is a coveted honor and privilege.

BUSINESS EDUCATION 101. Introduction to Business

This introductory business course furnishes a background of material helpful in the other business courses that follow. It also presents basic materials needed from the teacher's point of view in the teaching of junior business training or general business on the high school or junior high school level. Such topics as the functions of business, bank services, credit, investments, insurance, taxation, and prices are considered.

Credit: 4 semester-hours

BUSINESS EDUCATION 102. Business Law I-II

The object of this course is to give the student an understanding of the legal rights and obligations governing and regulating social conduct. It deals particularly with the rights and duties which arise in the transaction of business. Some law topics considered are: court systems (including New Jersey), contracts, agency, employer-employee relationships, negotiable instruments, bailor and bailee, and carriers and shippers.

Credit: 4 semester-hours

BUSINESS EDUCATION 201A. Business Law III

This is a continuation of course 102, but course 102 is not a prerequisite. Law topics treated are: sales, partnerships, property, deeds, mortgages, landlord and tenant, and torts.

Credit: 2 semester-hours

BUSINESS EDUCATION 201B. Business Organization and Management

This course provides an opportunity to study the various types of business organization and some of the problems encountered in the establishment and operation of a business. These business problems deal with such matters as

location, housing, equipment, arrangement and layout, internal organization, purchasing, shipping, personnel, and manufacturing.

Credit: 2 semester-hours

BUSINESS EDUCATION 202. Business Mathematics

This is a course designed to provide a background for the teaching and study of bookkeeping and accounting as well as commercial arithmetic in the junior high and secondary schools. The fundamental arithmetical processes are studied from the standpoint of their application to the needs of business and the consumer. Such topics as the Federal Income Tax, selling and billing, discounts, markups, financial statements, turnover, depreciation, pay-rolls, interest, insurance, and stocks and bonds are treated.

Credit: 4 semester-hours

BUSINESS EDUCATION 301. Bookkeeping and Accounting

This is a fundamental treatment of the subject and so planned that it gives the student an elementary understanding of the subject from a personal-use as well as a vocational standpoint. It deals with the fundamental theory of debit and credit, journalizing, posting, trial balance, adjustments, and the preparation of the financial statements as applied to the sole proprietorship form of organization.

Credit: 4 semester-hours

BUSINESS EDUCATION 302. Principles of Accounting

This advanced course in accounting deals with all phases of partnership and corporation accounting: manufacturing, inventories, consignments, installments, analysis of accounts, and the analysis and interpretation of the financial statements.

Prerequisite: BUSINESS EDUCATION 301

Credit: 4 semester-hours

BUSINESS EDUCATION 401. The Teaching of Business Education

In this course a study is made of the history and development of business education, aims or objectives, human learning processes, lesson plans, teaching procedure, tests and measurements, and special helps for the teachers of business education. Consideration is given to the current trend in teaching in these fields with emphasis on the viewpoint of the consumer as well as the social and vocational objectives.

Credit: 3 semester-hours

Business Education 402. Salesmanship

The principles of salesmanship in all types of selling activities are discussed. They are amplified and strengthened by individual selling demonstrations which require intensive study of the product to be sold in the demonstration and careful analysis of the desirable techniques for its sale. Visual aids and talks by salesmen, sales managers, and retail training directors add interest and purposefulness to the course.

Credit: 4 semester-hours

BUSINESS EDUCATION 404. Business Economics

This course deals with the business aspects of economics as related to immediate and long range post-war problems; operation and government control of public utilities; taxation, government finance, and labor and management problems.

Credit: 2 semester-hours

BUSINESS EDUCATION 405. Marketing

Marketing is the process of transferring goods from the producer to the consumer. The functions involved in this process, the various channels of distribution, marketing institutions, and the costs of marketing are considered in this course. Such topics as auctions, produce exchanges, wholesalers, retailing, department and mail-order stores, chain stores, cooperatives, profits, and prices are included.

Credit: 2 semester-hours

BUSINESS EDUCATION 406. Advertising 1

This course aims to acquaint the student with the social and economic aspects of advertising so that a fair evaluation may be made of its worth as well as its undesirable aspects. Copy appeals, the writing of copy, advertising layouts, and the selection of appropriate types of media for various advertisements are considered. Emphasis is placed on the research aspects of the subject so important today.

Credit: 2 semester-hours

BUSINESS EDUCATION 407A. Consumer Education I

This is a general introductory course designed to meet current needs for greater economic efficiency as outlined by the National Educational Policies Commission. The general objective of this course is to help improve the ability of individuals to choose and to buy economic goods and services so that standards of living may be raised. Some of the topics considered are: personal budgeting; the general art of buymanship; the cooperative movement; consumer standards and grade labels; weights and measures; governmental and producer aids for consumers; the wise buying of shelter, insurance, and investments; the intelligent use of installment buying and other forms of credit; and a general survey of the agencies for educating the consumer.

Credit: 2 semester-hours

BUSINESS EDUCATION 407B. Consumer Education II

This course is a continuation of Business Education 407A, but course 407A is not a prerequisite. The emphasis is on the economics of consumption with particular attention given to an analysis of the factors and forces back of consumer demand, such as custom, fashion, and advertising.

Credit: 2 semester-hours

BUSINESS EDUCATION 408. Business Finance

This course deals with the processes involved in the financing of business organizations from the time of their inception and promotion, during operation and expansion, and during the period of reorganization. Included are problems of financing by means of stock, borrowed capital, bonds, mortgages, and notes.

Credit: 2 semester-hours

BUSINESS EDUCATION 409. Money and Banking

This course provides a short historical survey of money and the evolution of banking, outside and within the United States. The organization of banks, the nature of their transactions, operations, and relations with other banks are considered. The functioning of the Federal Reserve System and the nature of the money markets are also examined.

Credit: 2 semester-hours

BUSINESS EDUCATION 410A. Cost Accounting I

A thorough knowledge of bookkeeping is a prerequisite to a profitable study of this course. The course deals with the basic principles of modern cost finding and cost keeping, and endeavors to give a practical application of these principles to present-day conditions. The practical application consists of a laboratory budget containing business papers, vouchers, pay-rolls, etc., together with full instructions for writing up a practice set of cost books.

Credit: 2 semester-hours

BUSINESS EDUCATION 410B. Cost Accounting II

This course is a continuation of 410A, and 410A is prerequisite to it.

Credit: 2 semester-hours

BUSINESS EDUCATION 411. Retail Store Management

The work of the store manager in retail store operation is fully explored in this course. The problems of organization and management as they are encountered in various types of retail stores are discussed. Consideration is given to trends, principles, and practices in small and large stores in both the independent and chain store fields.

Credit: 2 semester-hours

BUSINESS EDUCATION 412. Transportation and Communication

The student in this course becomes acquainted with the various kinds of services rendered by transportation and communication agencies. He also receives some insight as to how to use these services most efficiently; the practices of the agencies; how and why they are controlled by the government.

Credit: 2 semester-hours

BUSINESS EDUCATION 413. Business Statistics

This course supplements courses in accounting and social business studies and includes a study of the fundamentals of statistics as they apply particularly

to business data gathered from financial statements, sales records, and personnel records. Laboratory techniques are used in developing the methods of presentation.

Credit: 2 semester-hours

BUSINESS EDUCATION 414. Merchandising I

This course analyzes the problems of how, what, where, and when to buy; the terms of purchasing; tested receiving and marketing procedures; the mathematics of merchandising—setting the retail price, planning mark-up and markdown; and inventory controls. It is designed to assist the teacher of the prospective or actual small businessman.

Credit: 2 semester-hours

BUSINESS EDUCATION 415. Public Finance

This course aims to furnish a practical background for the student with respect to the nature and scope of governmental finance. Some of the areas studied are: the bases of taxation, income and expenses of government, and fiscal administration including governmental budgets.

Credit: 2 semester-hours

BUSINESS EDUCATION 420. Field Studies in Business Education

This orientation course aims to introduce business education students, through direct observational techniques, to the realities of the business world. Six field trips are made in the New York Metropolitan Area which include visits to business organizations where the following types of business activity or relationships may be observed: production; merchandising and advertising; finance; transportation and communication; employer-employee relationships; government and business relationships. The field trips are supplemented by regular class sessions where discussions are held and visual aids presented to make the visits more meaningful.

Credit: 2 semester-hours

THE DEPARTMENT OF ENGLISH

The English Department serves the entire college by offering certain courses in composition, speech, and literature which are required of all students. It offers other courses which may be taken as electives by students who are preparing to teach in any field, and a four-year program for those students who choose the subject as a major field of specialization.

The four-year program offers a rich background of knowledge and literary experience to the student who wishes to teach English in the high school. Courses in speech and composition develop the student's ability to express himself orally and in writing. Other courses are designed to give the student understanding of the way human beings use language to express and communicate their ideas and experiences, of the types and forms of literature, of the major developments in the literary history of the Western world, of the many masterpieces of British and American literature, of the subtle and intimate relationship between literature and human culture, and of the ways by which expression and reading may develop and enrich the lives of high school students.

Training for leadership in extra-curricular programs of the secondary school is provided in the activities of organizations sponsored by the Department. The ENGLISH CLUB welcomes to membership all English majors regardless of special interests and abilities and serves as an integrating factor for students in the Department. ALDORNIA, the honor society of the Department, limits its membership to those English majors who excell in scholarship. The CREATIVE WRITING CLUB offers opportunities for writing and criticism to those students interested in composition as a creative art. The SENATE is a society limited to men of the College who are interested in discussing music, art, literature, and contemporary social problems.

Two publications of the Student Government Association, THE MONT-CLARION (the College Newspaper), and THE MONTCLAIR QUARTERLY (a literary magazine), and two in the College high school, THE CRIER (school newspaper), and LA CAMPANILLA (school yearbook), are sponsored by the Department of English.

REQUIRED COURSES

Courses 100A, 100B, 200A, and 200B are required of all students. In lieu of English 200B speech majors take English 103.

Courses 101, 102, 201, 202, 301A, 301B, 302, 401, 402, and a two-semester-hour elective upon return from student teaching are required of all students majoring in the Department. Sixty observations divided between the junior and senior divisions of the College High School are required of senior English majors. These observations constitute partial fulfillment of the requirement to observe which is described in English 401.

THE FIRST YEAR

The sudent begins his college study of English with a survey course in World Literature, required of all freshmen, which gives him an over-view of the development of Western culture and provides background for his reading and thinking on aesthetic, ethical, social, and political problems. The English major takes the course in The Language Arts so that he may study the problems inherent in the communication of meanings through linguistic symbols and be better prepared to study and teach the uses of language. He also takes the course in British and American Drama from the Miracle Plays to O'Neill, the first of three courses in which the major types of literary expression are investigated.

ENGLISH 100A and 100B. World Literature: Its Masters and its Forms For a description of these courses, see page 44.

Credit: 3 semester-hours each

ENGLISH 101. The Language Arts

This course is designed to give the student a scientific understanding of the uses of language, to the end that he may learn to interpret more intelligently meanings conveyed through human speech and writing—including prose, poetry, and propaganda—and may be better equipped to teach high school students to write, read, speak, and listen comprehendingly.

Credit: 4 semester-hours

ENGLISH 102. British and American Drama from the Miracle Plays to O'Neill

This course is concerned with the historical development of English drama from its beginnings to the present day and analyzes the characteristics of drama as a literary form. Considerable emphasis is given to the contemporary drama.

Credit: 4 semester-hours

THE SECOND YEAR

All students in the second year are given special training in Composition (200A) and in Speech (200B). The English major continues his investigation of the development of the major types of literary expression by sudying British and American Poetry from Chaucer to Frost and British and American Fiction.

ENGLISH 200A. Composition

For a description of this course, see page 45.

Credit: 3 semester-hours

ENGLISH 200B. Fundamentals of Speech

For a description of this course, see page 45.

Credit: 3 semester-hours

ENGLISH 201. British and American Poetry from Chaucer to Frost

This course surveys the development of English poetry from its beginnings to the present time. Its study includes the types of poetic statement, the histori-

cal development of the styles and forms of English poetry, the life and work of the major British and American poets, and the critical appreciation of poetry as an art and as an expression of life.

Credit: 4 semester-hours

ENGLISH 202. British and American Fiction

This course is designed primarily to acquaint the student with the great novels of English and American literature from Defoe to Hemingway. A second major objective is to guide future teachers in the selection and treatment of novels suitable to high school students of varying age levels and social backgrounds.

Credit: 4 semester-hours

THE THIRD YEAR

Having acquired a broad literary background in the first two years, in the third year the English major prepares for teaching high school English by studying Literature for Adolescents, Shakespeare's Major Plays, and Survey of American Literature. During the spring semester of this year opportunities to elect courses of special interest are provided to English majors, and to majors in other departments.

ENGLISH 301A. Literature for Adolescents

A study of the reading interests of different age levels introduces problems involved in the selection of literature for students from the fifth through the twelfth grades. Reading and analysis of literature for children as well as for the young adolescent are required.

Credit: 2 semester-hours

ENGLISH 301B. Shakespeare's Major Plays

The plays of Shakespeare which are most frequently taught in the high school are studied. Discussion of Shakespeare's conception of tragedy and comedy, his dramatic art, the sources of his plays, staging in Shakespeare's theatre and in our own, and typical textual problems, provides the student with a background for teaching Shakespeare in the secondary school.

Credit: 2 semester-hours

ENGLISH 302. Survey of American Literature

A survey of American literature from its seventeenth century beginnings to the present day is undertaken in the course, and the political and social backgrounds are studied in the light of their influence upon literary history. Special attention is given to those classics which are frequently encountered in the high school curriculum.

Credit: 4 semester-hours

ENGLISH 310. Journalism

This course is designed to qualify the student to teach high school journalism. Its aim is to give the student training in recognizing news; gathering it; and

preparing it for print, including copyreading, headline writing, proofreading, and page make-up. The course assumes little or no previous journalistic training.

Credit: 2 semester-hours

THE FOURTH YEAR

In its major purposes the fourth year looks backward and forward. The Department offers a detailed chronological survey of English literature by which the student retraces the road he has traveled.

The Teaching of English makes concrete the professionalized work which has been continually stressed throughout the student's college career. By discussion, by daily observations of demonstrations, and by participation in the College High School, the full meaning of those professional ideas and ideals that have been kept before him throughout his college course is demonstrated.

ENGLISH 401. The Teaching of English in Secondary Schools

Students are taught to develop and use materials of the classroom: lesson plans and units of work are prepared and presented for criticism; textbooks are analyzed for training in their use; and bulletin board exhibits and visual education materials are prepared by students for the class. Observation and criticism of teaching in the College High School, and criticism of student compositions are required.

Credit: 3 semester-hours

ENGLISH 402. Survey of British Literature to 1798

This course draws together into a systematic narrative the story of the development of English literature from the beginnings to the romantic triumph in 1798.

Credit: 4 semester-hours

ENGLISH 404. Survey of British Literature

This course is a continuation of English 402. It takes up the story with the romantic triumph in 1798 and continues it to the present time.

Credit: 2 semester-hours

ENGLISH 405. The Victorian Poets

This course covers the work of the Brownings, Tennyson, Arnold, Clough, Morris, the Rossettis, and Swinburne. The authors are presented in relation to the moral, religious, social, and political life of nineteenth-century England.

Credit: 2 semester-hours

ENGLISH 406. The Modern Novel

Particular emphasis is given to British and American novels since 1870, and the important tendencies of present-day prose fiction are explored. Students are taught how to read a novel with profit, and how to guide and direct the reading of others.

ENGLISH 69

ENGLISH 407. British and American Biography

Both the old and new types of biography are read and studied in this course, with emphasis upon the nineteenth and twentieth centuries. Biography is presented for its cultural and informational values, for its use in integrating the work of the various departments in the high school, and for its direct help in the vocational guidance program.

Credit: 2 semester-hours

ENGLISH 408. Creative Writing

Students in this course attempt seriously the standard literary forms in prose and verse. Each student is assisted in finding his own best field of writing, and is given further training in that field. The course is based entirely upon the needs of the class as revealed in student-written manuscripts. Much time is devoted to criticism and to discussion of mutual problems. Wherever possible, the course is made to reflect methods of creative teaching in the field of composition.

Credit: 2 semester-hours

ENGLISH 409. The Teaching and Appreciation of Poetry

This course is both personal and professional. It develops the student's appreciation of poetry as an expression of life and as a form of art, and it considers in detail the aims and methods of teaching poetry.

Credit: 2 semester-hours

ENGLISH 413. Modern Poetry

This course deals with the work of contemporary poets, both British and American. Much of the best modern poetry is studied for interpretation and appreciation. The distinctive poetry "movements" that have occurred during the present century are examined as expressions of changing social and artistic ideals. Critical appreciation of poetry is developed through comparison of the diverse styles, themes, and poetic theories present in modern poetry.

Credit: 2 semester-hours

ENGLISH 414. Public Relations and School Publicity

This course considers such problems as the development of a student publicity staff, preparation of copy for professional newspapers, publicity for school news, and the development of better school-community relations. A study is made of other publicity media, including radio, visual aids, the platform, displays and exhibits, special events, sports promotion, and fund-raising. A background of elementary journalism is helpful in this course.

Credit: 2 semester-hours

ENGLISH 415. Journalism for Advisers

This course is designed to qualify students to act as advisers of school publications. Problems of staff organization, as well as editorial, business, advertising, and circulation problems are discussed. The course assumes a knowledge of elementary journalism or the ability to combine extra assignments in elementary journalism with this course.

ENGLISH 419. Grammar for Teachers

This course is a study of the basic facts of grammatical relationships in English, and of the current problems of "rules" as opposed to "usage." The primary aim of the course is to acquaint students with the true function of grammar in speech and writing.

Credit: 2 semester-hours

ENGLISH 420. High School Classics

This course is a seminar for prospective student teachers on the problem of teaching literature in high schools. The student reads numerous articles on the "classics" vs. the "moderns" controversy, becomes thoroughly acquainted with the contents and aims of the best high school anthologies currently in use, and builds up a working philosophy for his own teaching. Through the continual practice of reporting and discussion leading, the student is enabled to integrate his total experience in college.

Credit: 2 semester-hours

ENGLISH 421. The Short Story

The course traces the history of the short story as an evolving literary form, emphasizing the productions of the nineteenth and twentieth centuries. Many stories are analyzed for both human and literary values. Professional use of the short story is the guiding purpose in the conduct of the course.

Credit: 2 semester-hours

ENGLISH 422. Seventeenth Century Literature

This course covers the period from Donne through Dryden. It deals with Jacobean and Restoration drama; the Jonsonian, Metaphysical, and Restoration lyric; the prose of Browne, Walton, Donne, Taylor, Hobbes, Burton, and Bunyan; the prose and verse of Milton; the prose and verse of Dryden.

Credit: 2 semester-hours

ENGLISH 426. The Victorian Novel

This is an intensive unit of work on the novel in Victorian England. A review of the development of the English novel before this period is followed by studies in the works of Dickens, Thackeray, Austen, Eliot, Trollope, Meredith, and Hardy. Novels studied in the high school are treated professionally in class.

Credit: 2 semester-hours

ENGLISH 427. Theatre and Society

Dramatic expression from the time of the ancient Greeks to the present is studied carefully to analyze social, political, and ethical trends as they are reflected in the drama. The members of the course prepare analyses of social trends in contemporary drama. This research provides the basis for reports given during the latter part of the course.

Prerequisite: ENGLISH 102 or its equivalent

ENGLISH 71

ENGLISH 430. Reading in Secondary Schools

After examination of recent research concerning reading activities at various age levels, the class undertakes to evaluate methods devised to develop reading skills, to increase vocabularies, and to improve the comprehension of secondary school students.

Credit: 2 semester-hours

ENGLISH 431. Shakespeare

This course deals with Shakespeare's plays in relation to his life, his times, his contemporaries, and Elizabethan drama generally. Extensive reading is required from Shakespeare, his predecessors, contemporaries, and successors. The problems of stage production in both Elizabethan and modern theatres and of Shakespearean criticism are analyzed.

Credit: 4 semester-hours

ENGLISH 432. The Development of the Drama

The development of the drama is studied in all periods from ancient Greece and Rome through the Middle Ages and the Renaissance to the beginning of modern drama with Ibsen. The emphasis of the course is placed on trends, developments, and the major characteristics of the drama and its necessary complement, the theatre. Representative plays are read and discussed.

Credit: 2 semester-hours

ENGLISH 438. Masters of American Literature

Significant American writers, including Irving, Hawthorne, Poe, Emerson, Melville, Whitman, and Mark Twain are studied to discover their contributions to American life and to reveal important forces in our national background.

Credit: 2 semester-hours

ENGLISH 439. Contemporary American Literature

This course studies the major authors and literary movements in America during the contemporary period. Beginning where the course in *Masters of American Literature* normally ends, it is designed to complete a unit in this subject.

Credit: 2 semester-hours

ENGLISH 440. The English Novel from Defoe to Scott

After a brief preliminary examination of the medieval, the Elizabethan, and the seventeenth century anticipations of the novel, the development of English fiction from Defoe to Scott is studied. The characteristics of the individual writers are analyzed, and typical novels are examined to discover their contributions to the art and craft of fiction. Particular attention is given to those novels of Scott which are frequently studied in the secondary school.

Credit: 2 semester-hours

ENGLISH 441. Medieval Epic, Saga, and Romance

This course deals with the chief medieval epics, sagas, and romances from the literatures of England, France, Germany, Ireland, Iceland, Wales, and Italy in modern English translation. Attention is given both to those narratives which

reflect the life of a particular country and to those which are international and express more generally the spirit of medieval Europe.

Credit: 2 semester-hours

ENGLISH 442A and 442B. American Literature

This chronological survey examines American Literature to observe its reflection of the political, social, and ethical principles of the American people. Part A begins with the Revolutionary period of the eighteenth century and ends with the Civil War. Part B embraces Reconstruction and the New South, immigration and the development of the West, urban America, and the present reaffirmation of the American tradition of Democracy.

(Not open for credit to students who have credit for ENGLISH 302, Survey

of American Literature.)

Credit: 2 semester-hours each

ENGLISH 443. Modern Drama

An historical survey of trends, dramatists, plays, and accomplishments from Ibsen to the latest prize plays on Broadway provides background for this course. An examination of the structure and content of plays to determine what constitutes a good play stimulates appreciation. Students are encouraged to read widely and to see current productions on Broadway.

Credit: 2 semester-hours

ENGLISH 445. Eighteenth Century Literature

Major essayists, poets, dramatists, novelists, and letter writers are read and evaluated in terms of the thought, life, and literary movements of their own time and of their significance for the present generation. Authors studied include Addison, Steele, Defoe, Swift, Goldsmith, Sheridan, Gray, Johnson, Boswell, Cowper, Richardson, Fielding, Sterne, Smollett, and Burke. High school classics receive special attention.

Credit: 2 semester-hours

ENGLISH 446. The One-Act Play

This course studies the one-act play as an art form, devoting special attention to plays which are suitable for high school production.

Credit: 2 semester-hours

ENGLISH 447. Philosophy of Great Literature

By studying one or two masterpieces in a given semester this course aims to help the student develop a plan of study to achieve a systematic understanding of the philosophic world-views and life-views implicit in such works as: Aeschuylus's trilogy, The Oresteia; Plato's Timaeus; Boethius's Consolations of Philosophy; Dante's Divine Comedy; Shakespeare's Hamlet; Milton's Paradise Lost; Pascal's Pensées; Goethe's Faust; Blake's The Marriage of Heaven and Hell; Dostoievski's Brothers Karamazov; Mann's The Magic Mountain; Hesse's Demian; Henry Adams's Mont St. Michel and Chartres; the Bhagavad-Gita; Lao-tse's The Book of Tao; and Auden's Collected Poetry.

ENGLISH 450. Contribution of American Drama to American Democracy

This course studies the part played by American drama in the evolution of American democracy from the eighteenth century up to the contemporary period.

Credit: 2 semester-hours

ENGLISH 451. Literature and Art in Western Culture

This course deals with the nature of literature and considers its importance as a factor in the development of international understanding. It deals with the relation between the use of language in literature and with the methods of art since the re-creation of experience is a function common to both. Through reading the literature which is being read by our neighbors today, both in Europe and in the Western Hemisphere, students are able to participate in a common experience with them.

Credit: 2 semester-hours

ENGLISH 455. Reading Interests of High School Students

Through wide reading, study and preparation of bibliographies, and establishing criteria for judging current books, the student is prepared to guide the recreational reading of junior and senior high school students.

Credit cannot be given for both ENGLISH 301A and 455.

Credit: 2 semester-hours

ENGLISH 459. A Survey of Great Chinese Literature

Some of the contributions which have gone into the making of Chinese literature, such as the work of Tao Teh Ching, the *Analects of Confucius, The Monkey*, and the poetry of Tang, are considered. Aside from a general insight into the great literature of China special attention is given to English translations of masterpieces of Chinese Literature. There are twenty-four hours of lectures in the morning, and round-table discussion and library work in the afternoon. During the workshop period individual students work on specific phases under the guidance of the instructor.

Prerequisite: Social Studies 499-China Workshop

Credit: 3 semester-hours

ENGLISH 460 American Literature of Social Problems

This course surveys the American literature which presents social problems during the period from 1800 to 1914 in an attempt to discover the attitudes of the various authors toward these problems. The works of such authors as Cooper, Lowell, Thoreau, Whitman, Howells, Bellamy, Garland, and Glasgow are studied from this point of view. Enough of the social background of the period is discussed to give the necessary perspective for the discussion of the literature, but the emphasis is placed on the reflection of the problems in literature and not merely on the problems themselves.

THE SPEECH MAJOR

A growing recognition on the part of school administrators of the important role played by speaking, discussion, conversation, and dramatic productions in achieving the goals of education has increased the demand for instructors of speech in the secondary schools. Such teachers must be able to guide students in learning to formulate and to express in effective speech opinions concerning what they believe and hear. They must be able to lead and to participate in discussions and dramatic productions. Moreover, the frustrations, maladjustments, and character deterioration which result from being isolated from the group because of defective speech have been shown to be preventable, to a large degree, through speech correction. For that reason, speech correctionists are needed for work in elementary schools and often in an entire school system.

Since the teacher of speech and dramatics, in some school systems, is expected to guide both the speech improvement and the speech correction program, the speech major has been designed to prepare prospective teachers for positions as

teachers of speech and dramatics and speech correctionists.

Further experience in the field is afforded through extra-curricular activities sponsored by the Speech Department. PLAYERS, a society open to the entire student body, promotes interest in drama and gives at least two major productions each year. ZETA PHI, although open to all students interested in the field of speech, is largely an organization of speech majors and minors, which devotes its meetings to performances of its members and to discussions of problems in speech education. SIGMA ALPHA ETA, national speech correction honor society, is represented on this campus by Zeta Chapter.

REQUIRED COURSES

English 103, required of all speech majors and minors, is taken in lieu of English 200B, a cultural background course required of all other students. Speech majors are required to minor in English.

English 104, 105, 106, 204, 208, 209, 410, 435, 456, 457, 461A, 461B, 463, 464, and 465 are required of all students majoring in speech.

THE SPEECH MINOR

Eighteen semester-hours of work, chosen from the following courses according to these stated requirements, constitute the speech minor. (English 103, Fundamentals of Speech for Speech Majors, is required of all speech majors and minors in lieu of English 200B, Fundamentals of Speech.) The requirements for the speech minor may then be met by the following courses:

1. Speech Fundamentals—5 semester-hours required

Take English 104, Phonetics, and English 208, Physics and Physiology of Speech and Hearing

- 2. Public Speaking—2 semester-hours required
 Take English 204, Extemporaneous Speaking
- 3. INTERPRETATION—2 semester-hours required Take English 106, Oral Interpretation, or English 448, Choral Speaking
- 4. DRAMATICS—2 semester-hours required

 Take English 105, Fundamentals of Acting, or
 English 435, Stagecraft, or
 English 456, Play Direction
- 5. Speech Correction—4 semester-hours required Take English 209, Speech Correction, and English 410, Speech Pathology
- 6. METHODS—3 semester-hours required

 Take English 417, Methods in the Teaching of Speech

SEQUENCES OF COURSES

A. Required Sequences

English 103 during the first half of the sophomore year—prerequisite to all other speech courses

English 208 in second half of sophomore year—prerequisite to Engglish 209 and English 410

English 209 before or with English 410

B. Recommended Sequences

English 204 before English 449

English 105 before English 456

Possible elections in speech for those desiring more than the minimum requirements listed above include the following courses:

English 444, Preparing the Radio Script

English 454, Training the Speaking Voice

English 457, Workshop in Speech Activities

English 458, Radio Directing

English 461A, Speech Clinic Practice

English 461B, Advanced Speech Clinic Practice

English 463, Audio-Visual Aids in Teaching Speech

English 465, Speech Arts Activity

Transfer students please confer with a member of the speech faculty regarding courses taken elsewhere which can be accepted as fulfilling any of the above requirements.

THE SPEECH MAJOR—THE FIRST TWO YEARS

During the first two years the speech major is given experience in elementary courses in oral reading, speaking, acting, voice improvement, and phonetics.

ENGLISH 103. Fundamentals of Speech for Speech Majors

This course, in general, covers the same areas as English 200B, but it is designed specifically for speech majors. See the description of English 200B.

Credit: 3 semester-hours

ENGLISH 104. Phonetics

In this course the student becomes acquainted with the International Phonetic Alphabet and is given practice in using the symbols both in transcribing and in reading from transcriptions.

Credit: 2 semester-hours

ENGLISH 105. Fundamentals of Acting

The techniques of acting, pantomime, and characterization are studied and practiced in this course. A minimum of twelve clock hours of participation in the production of a play by the class or by Players is required for credit.

Credit: 2 semester-hours

ENGLISH 106. Oral Interpretation

This course is organized to increase the student's appreciation of poetic and dramatic literature from the standpoint of art in sound, and to develop his potentialities in oral reading.

Credit: 2 semester-hours

ENGLISH 204. Extemporaneous Speaking

This course provides maximum platform practice. Students speak on subjects of current interest, paying attention to content, organization of material, and essentials of effective oral presentation. This course is required to teach speech.

Credit: 2 semester-hours

ENGLISH 208. Physics and Physiology of Speech and Hearing

The fundamental principles of the physics of sound, the operation of the vocal mechanism in producing speech sound, and the functioning of the aural mechanism in detecting sound and distinguishing its various characteristics, especially those significant in the understanding of speech, are considered. An introduction to the International Phonetic Alphabet in relation to the various speech sounds of English is included. This course is required for teaching speech and speech defectives.

Credit: 3 semester-hours

ENGLISH 209. Speech Correction

A study of the problems inherent in such abnormalities as lisping, cluttering, vocal monotony, and general articulatory inaccuracies is undertaken in order that the nature of the problems, their diagnosis, and correction may be understood. This course is required to teach speech and speech defectives.

Prerequisite: English 208

ENGLISH 77

THE THIRD YEAR

During the third year the speech major is introduced to speech correction under careful supervision, and learns the psychological principles of speech acquisition, as well as of oral communication. He takes courses in Play Direction and in Stagecraft which introduce him to two more phases of play production. He puts the theory into practice by his work with Players, and in a course in Speech Arts Activity. A course in the Audio-Visual Aids in Teaching Speech introduces him to the devices and materials he can use to enrich his teaching.

ENGLISH 435. Stagecraft

This workshop course provides training in construction and painting of scenery and lighting the stage. A minimum of twelve clock hours of craft work upon a production of the College or the College High School is required for credit in this course.

Credit: 2 semester-hours

ENGLISH 456. Play Direction

This course covers the choosing and casting, as well as directing, of plays. Scenes are directed for class criticism, and a detailed prompt-book of one play is prepared. This course complements English 435.

Credit: 2 semester-hours

ENGLISH 461A. Speech Clinic Practice

After the techniques of interviewing, of preparing case histories, of diagnosing speech disorders, of planning therapies, and of determining prognoses have been taught through lectures and demonstration lessons, each student is assigned one or more persons with speech defects for supervised practice in correcting speech disorders. Credit is given on a laboratory basis, and the course meets three hours weekly. This course is required for the teaching of speech defectives.

Credit: 2 semester-hours

ENGLISH 463. Audio-Visual Aids in Teaching Speech

The aim of this course is to equip prospective teachers to understand the desirable characteristics; capabilities; and all possible uses of charts, models, and magnetic and disc recorders available for the teaching of speech. The distribution, cost, operation, servicing, and storing of instruments and of supplies are also considered.

Credit: 2 semester-hours

ENGLISH 464. Speech Psychology

The mental processes involved in acquiring language and in using it in effective oral communication are reviewed. Problems involving psychological principles as they apply to oral teaching, to audience leadership and control, to the alleviation of stage fright, and to the teaching of speech improvement are considered along with the principles of general semantics.

Credit: 2 semester-hours

ENGLISH 465. Speech Arts Activity

Each speech major is required to earn at least one semester-hour of credit in some supervised speech arts activity, such as: playing a major role in a major production; directing a three-act play or its equivalent; giving a public play reading or lecture recital; directing a series of assembly programs; or directing and producing a series of radio programs.

Credit: 1 semester-hour

THE FOURTH YEAR

The course in Methods in the Teaching of Speech should be for the speech major a review of the principles learned in previous courses with a multitude of suggestions for techniques to be used in imparting that knowledge and developing those skills in the students whom he will teach. With this overview there should emerge a clear picture of the place of speech skills in the educational pattern and a philosophy which will give depth to teaching throughout one's professional career.

Concurrent with the study of Speech Pathology the speech major has an opportunity for planning and carrying out with greater independence a course of therapy for speech handicapped persons. After a twelve week period of teaching in a New Jersey secondary school the speech major returns to a workshop course in speech activities to round out his professional preparation. English 410. Speech Pathology

This course deals with diagnostic and corrective procedures, cause and treatment for stuttering, cleft palate, spastic speech, and aphasia. This course is required to teach speech and speech defectives.

Prerequisites: English 208 and 209

Credit: 2 semester-hours

ENGLISH 417. Methods in the Teaching of Speech

In this course a study is made of the objectives of speech education, modern trends in instruction, speech textbooks and teaching materials, and the integration of speech with other academic departments of study. This course is required to teach speech.

Credit: 3 semester-hours

ENGLISH 444. Preparing the Radio Script

This course trains the student in planning and writing educational radio scripts. Selected class scripts are recorded in the College studio and are offered to commercial stations for broadcasting.

Credit: 2 semester-hours

ENGLISH 448. Choral Speaking

As members of a speaking choir, students acquire skill in interpreting various forms of literature suitable for group treatment.

ENGLISH 449. Public Speaking

This is an advanced course in the theory and practice of public speaking. It provides opportunity for training in the more complex speech skills, especially in the techniques of leadership in speech situations and the techniques for making speech responses in cooperative situations.

Prerequisite: English 204 or the equivalent

Credit: 2 semester-hours

ENGLISH 454. Training the Speaking Voice

This is a course in the study of the problems of speech, the development of a pleasing speaking voice with precision in diction, and the application of speech skills to practical speaking situations.

Credit: 2 semester-hours

ENGLISH 457. Workshop in Speech Activities

It is the purpose of this course to prepare students to organize and to conduct assembly programs, PTA demonstrations, and similar activities. Class lectures and discussions cover all phases of the director's responsibilities. Groups conduct research on suitable program materials and share their findings with classmates. Each student prepares a list of programs of various types which he could present during a school year.

Credit: 2 semester-hours

ENGLISH 458. Radio Directing

This course offers training in the organization and direction of radio programs, and equips the student to select material for broadcasting and to cast and to rehearse programs. Listening is directed toward an analysis of common radio presentation techniques and the appreciation of successful programs.

Credit: 2 semester-hours

ENGLISH 461B. Advanced Speech Clinic Practice

This course provides for additional supervised speech correction practice with adults or children with speech disorders. Credit is given on a laboratory basis, and the course meets three hours weekly.

Credit: 2 semester-hours

ENGLISH 462. Group Discussion and Leadership

Students are taught the principles of democratic discussion and methods for guiding the committee meeting, panel symposium, lecture, and debate forums. Frequent opportunities to apply these principles and methods are given through discussion of topics chosen by the class.

THE DEPARTMENT OF FOREIGN LANGUAGES

The Foreign Language Department aims to train teachers for the junior and senior high schools in sound scholarship, true culture, and sympathetic understanding of the foreign people whose language they are to teach.

All the courses in the Department of Foreign Languages are planned to provide linguistic skill, literary appreciation, and understanding of human relationships in order to insure efficient professional service. The emphasis is on sequential development which has the effect of unifying the work within the Foreign Language Department and of correlating it with the work of the other departments, particularly the English, Social Studies, Integration, and Music Departments.

Students majoring in a foreign language are required to take work in that language for the four years of the college course. In these four years the prospective teacher of French, Spanish, or Latin acquires a fundamental knowledge of his major subject and an understanding of world problems.

For majors in a chosen language the following courses are required: 101, 102, 201, 202, 301, 302, 401, 402, and 404.

For minors in a foreign language the following courses are recommended: 101, 102, 201, 202, and 402.

Prerequisite for those majoring or minoring in any foreign language are three or four years of high school work in the language. Consideration will be given to excellent students who have not fully met this requirement. High school Latin is desirable for all language work, but it is not prerequisite for the study of a modern language at the College. The class work in French and Spanish is conducted entirely in these languages.

The Foreign Language Department sponsors three literary clubs and one graduate organization. In these extra-curricular activities prospective language teachers have ample opportunity for leadership, creative work, and worthy employment of leisure time.

The College High School plays an important part in the daily life of students of the Foreign Language Department. During the freshman and sophomore years regular observation of the high school classes in the language of their major is required. A change from observation to active participation through limited assistantship and occasional demonstration is made during the junior and senior years. Thus, the subject-matter of high school and college language classes is thoroughly integrated.

An attractive feature of the foreign language work preparatory to high school teaching is the possibility of a year of study in a foreign country, a feature which this College stresses in its training of teachers of modern languages.

Students desiring academic credit for STUDY ABROAD register for the work before taking it. All such matters as the country and institution in which the

work is to be done, the amount of credit to be received, reports to be made, and the like, are prearranged with the head of the department. For further information about this work, see page 31.

In the last fifteen years, one hundred and forty students from the College have spent a year of study in colleges and universities of Austria, France, Germany, Canada, Mexico, Spain, Switzerland, and South America.

In appreciation of the professional help granted to Montclair students by foreign countries, students from abroad interested in the teaching of English in the schools of their home countries have been invited as guests for a year of study at Montclair State Teachers College. In the past students from Austria, Germany, France, Cuba, Mexico, and Spain have taken work at the College.

It is impossible to estimate to its full extent the importance of this student exchange movement in the field of education. It may prove to be one of the most vital steps in the advancement of modern foreign language teaching in American high schools of today and tomorrow.

FRENCH

The following courses are arranged to give the prospective high school teacher of French an understanding of the French people, their culture, and their problems through a study of the development of their civilization—their social, economic, political, literary, and artistic life. All courses are given entirely in French, and are designed to give ever-increasing opportunities to develop self-expression in the foreign tongue through readings, discussions, and reports.

THE FIRST YEAR

French Civilization

FRENCH. 101. French Civilization: Early Periods FRENCH 102. French Civilization: Renaissance

The freshman courses present the background for all subsequent linguistic and literary studies in French. During the first semester especial attention is devoted to bringing all the students up to a uniform level of development in speaking, reading, and writing French so that homogeneous class work may be assured. This objective is accomplished by a careful appraisal of the results of the required three years of study of high school French, the correction of weaknesses discovered, constant training in speaking French both in the classroom and in special conversation classes, and practice in French composition and dictation. During this year, especially in the second semester, definite units of work in French civilization are presented with special emphasis on the geography of France and French history to the 17th century.

Credit: 4 semester-hours each

THE SECOND YEAR

Seventeenth Century French Literature

FRENCH 201. French Civilization: 17th Century

FRENCH 202. French Theatre: Corneille, Molière, Racine

In the sophomore year the student is introduced to the literature and life of the 17th century, an age of important French contributions to the world's literature. Although especial attention is given to the works of the three great French dramatists, the contributions of other significant writers are carefully examined. These include Descartes, Boileau, Bossuet, Pascal, La Fontaine. The colorful reigns of Louis XIII and Louis XIV furnish the historical background of this century.

Credit: 4 semester-hours each

THE THIRD YEAR

FRENCH 301. French Civilization: 18th Century

FRENCH 302. French Civilization: 18th Century and the Romantic Movement The junior courses aim to train students in all phases of the literature of French 83

18th century France with special attention to the origin and later development of the Romantic Movement. In them it is sought to evaluate French thought, to present a picture of French civilization as expressed in architecture, painting, sculpture, furniture, music, and by so doing to throw some light on the problems of contemporary France. These courses constitute an advanced language study based on *explication de textes* of representative authors, both prose writers and poets.

Credit: 4 semester-hours each

THE FOURTH YEAR

Theory and Practice in the Teaching of French

The courses in French during the senior year are designed to combine all the professionalization of previous French courses with a careful study of the teaching of French in the secondary schools. The period of practice teaching allows the prospective teacher to test his scholarly preparation under the guidance of a successful high school teacher.

FRENCH 401. The Teaching of French in Secondary Schools

For a description of this course, see LANGUAGE 401, page 91.

Credit: 3 semester-hours

FRENCH 402. Advanced French Grammar and Composition

This course develops a complete review of French grammar and composition as a basis for advanced work in the writing of French. It emphasizes syntax and style, the explanation of forms in the light of historical grammar, and includes a study of selected French readings to determine their suitability for high school use on the basis of diction and grammatical usage.

Credit: 4 semester-hours

FRENCH 404. Modern French Literature: Selected Authors

This course is concerned especially with those modern French authors whose works are most frequently drawn upon for the reading selections in modern French textbooks used in high school teaching. Its aim is to present current trends in French literature. Particular attention is devoted to the lives of the authors studied and to the effect of the times on the character of their works.

Credit: 2 semester-hours

FRENCH 405. Development of the French Novel

This course traces the development of the various types of French novel from its origin to our times.

One work characteristic of each period of development is read and analyzed for its background revealing life in France, its character delineation, and its literary value and influence. The student is expected to read extensively and critically and to report on his findings.

FRENCH 406. The Great Currents of Contemporary French Literature

A survey of contemporary French literature is based on the study and interpretation of French civilization and literature in the pre-war, war, and post-war generations. The threefold aim of the course is: (1) to help the student better to understand and to appreciate the new trends of thought in France through literary interpretation; (2) to enable him to plan his reading intelligently by selecting from the abundant materials that contemporary literature offers to his choice; and (3) to give him a background for a more thorough study of this period of French literature. The course includes lectures, class and individual readings, and discussions.

Credit: 2 semester-hours

FRENCH 407A. Survey of the French Theatre to 1887

This course is designed to give the student a bird's eye view of the development of the French theatre. Attention is directed to the independent origin and development of the French drama in the Church during the Middle Ages. The influence of the Greek and Roman drama upon French drama in the sixteenth century and upon the classical drama of the seventeenth and eighteenth centuries is studied. Foreign influences are reviewed preparatory to a survey of conditions in the nineteenth century. The emphasis throughout rests upon trends, movements, and major characteristics of the drama. Representative plays are assigned for reading and discussion.

Credit: 2 semester-hours

FRENCH 407B. Survey of the French Theatre from 1887 to the Present

This course is a survey of the modern French theatre starting with the beginnings of the Théâtre Libre, which tried (1) to liberate the drama from antiquated conventions, and (2) to broaden the field of dramatic production in France. The course is intended to stimulate the student's interest in the contemporary drama and to interpret its meaning in a study of the civilization of the pre-war and post-war generations. Plays are read and discussed in class, and, if possible, the members of the course participate in the production of one-act plays.

Credit: 2 semester-hours

FRENCH 410. The Anthology of French Poetry

This course presents a picture of the development of the French language and literature through the study of poetry as an expression of different literary movements. Authors representative of each period are studied, with special emphasis placed on the fifteenth and sixteenth centuries and the literary schools following the romantic movement. The course is conducted in French and provides opportunity for the improvement of clearness of enunciation and pronunciation as well as for personal enrichment through an appreciation of French poetry.

French 85

FRENCH 413. Nineteenth Century French Literature

This course presents the life and literature of 19th century France. It emphasizes the history and art of the period, the changes in social stratification in French society, and the reflection of these changes in contemporary literature. Representative authors of the literary schools are discussed, and their outstanding works are studied for style and content.

Credit: 2 semester-hours

FRENCH 415. The French Club and Other Extra-Curricular Activities

This course, designed particularly for teachers of French, surveys briefly the aims of extra-curricular activities in modern language work and emphasizes especially: (1) the organization of extra-curricular activities, (2) the preparation of materials, and (3) the procedures. The course is conducted in French on the model of a forum with general discussion. The actual conduct of an extra-curricular activity is required as a laboratory exercise.

Credit: 2 semester-hours

FRENCH 416. French History from the Beginning to the Present

This course aims to provide the prospective teacher with the historical background necessary for the understanding of present-day conditions.

LATIN

The work in Latin is designed to build upon the results of high school Latin a solid structure of knowledge, (1) of Roman civilization in its varied aspects, and (2) of the professional phases of Latin instruction. Particular emphasis is laid on knowledge of Latin as a language, on Latin literature, and on the development of Roman social, political, and economic institutions.

THE FIRST YEAR

The Golden Age of Latin Literature

LATIN 101. The Masters of Prose Literature: Cicero and Livy LATIN 102. The Masters of Poetic Literature: Virgil and Horace

These courses provide for continued development from the high school foundation by, (1) translation and interpretation of selected works from the Golden Age of Latin literature, (2) a survey of the essentials of Roman civilization, and (3) practice in the writing of Latin prose.

Credit: 4 semester-hours each

THE SECOND YEAR

The Silver Age of Latin Literature

LATIN 201. The Masters of Prose: Pliny and Tacitus

LATIN 202. The Anthology of Latin Poetry: Ennius to Ausonius

In this year the work in Latin includes: the translation and interpretation of selected works from the Silver Age of Latin literature; Latin poetry from Ennius to Ausonius; a survey of Roman private life; and student-teaching of college classes in Latin composition. Student-teaching follows Baker and Inglis' Latin Composition as a guide.

Credit: 4 semester-hours each

THE THIRD YEAR

Roman Drama and Philosophy

LATIN 301. Roman Drama: Plautus and Terence

LATIN 302. Roman Philosophy: Lucretius

During the junior year selected dramas of Plautus and Terence are read not as ends in themselves but as avenues to the study of dramatic literature in general and the acquisition of sound standards of literary criticism. Changing literary values are discussed in a series of lectures on Latin literature. The reading of Lucretius' *De Rerum Natura* serves to introduce the student to the evolution of abstract thought as developed in Greek and Roman philosophy.

Credit: 4 semester-hours each

LATIN 87

THE FOURTH YEAR

Theory and Practice in the Teaching of Latin

The senior courses in Latin are designed to combine all the professionalization of previous Latin courses with a careful study of the teaching of Latin in secondary schools. The period of student-teaching allows the prospective teacher to test his scholarly preparation under the guidance of a successful high school teacher.

LATIN 401. The Teaching of Latin in Secondary Schools
For a description of this course, see LANGUAGE 401, page 91.

Credit: 3 semester-hours

LATIN 402. Advanced Latin Grammar and Composition

The aim of this course is to develop a comprehensive view of Latin grammar, to give considerable practice in the writing of Latin according to the styles of Caesar and Cicero, to study those styles as evidenced in the best known works, and to set up standards of criticism of both prose and poetical writing. These objectives require wide collateral reading in Latin literature and intensive class examination of the masterpieces chosen for imitative writing.

Credit: 4 semester-hours

LATIN 404. Latin Satire: Juvenal

The special emphasis in this course is on the works of Juvenal. Satire as a branch of literature is studied, considerable attention being given to examples of satirical writing in English.

SPANISH

Following the trend of the times, the work in Spanish while maintaining the classic approach is now placing considerable emphasis on Hispanic-American civilization. To a great extent our national policy of Western hemisphere comity and the immediate economic importance of Central and South America underlie the present keen interest of high school students in the study of Spanish. The courses are given in Spanish and are designed to give the prospective teacher of Spanish ample opportunities for self-development in the foreign tongue through readings, discussions, and reports.

THE FIRST YEAR

Spanish Civilization

SPANISH 101. Civilization of Spain

SPANISH 102. History and Literature of Spain

During the first semester of study, the prospective teacher of Spanish is expected to gain an understanding and appreciation of Spain. The work of the second semester is concentrated on the civilization and literature of Spain up to the seventeenth century. Factual knowledge is aimed at throughout the year, but fluency in speaking Spanish is the prime objective. Grammar and composition are emphasized.

Credit: 4 semester-hours each

THE SECOND YEAR

Hispanic-American Civilization

SPANISH 201. The Period of Conquest and Colonization by Spain SPANISH 202. The Period of Independence to the Present Time

The work in Spanish during the second year is devoted entirely to the acquisition of knowledge about the current culture patterns of South and Central America. Each period is taken up in turn, and attention is specifically directed to changes in the culture patterns produced by the conquest and colonization by Spain and the subsequent struggles for independence. The religious, social, economic, political, and artistic aspects of the life of these periods as well as the historical background in relation to Spain are carefully treated through Spanish literature. This work is done in Spanish with appropriate attention to grammar and composition.

Credit: 4 semester-hours each

THE THIRD YEAR

The Spanish Classics

SPANISH 301. Cervantes

SPANISH 302. Lope de Vega, Tirso de Molina, Calderón de la Barca

In the third year the prospective teacher of high school Spanish is expected

to gain a literary understanding and cultural appreciation of the classical age of Spanish literature. While many of the outstanding works of the classical authors are read and discussed, a few masterpieces are studied intensively. The sources, structure, style, versification, and character descriptions are carefully examined against a comprehensive study of the historical background of the 16th and 17th centuries. Especial attention is directed during this year to such grammar and forms as are required in class discussions and free composition.

Credit: 4 semester-hours each

THE FOURTH YEAR

Theory and Practice in the Teaching of Spanish

The courses in Spanish during this year are designed to combine all the professionalization of previous Spanish courses with a careful study of the teaching of Spanish in secondary schools. The period of practice teaching allows the prospective teacher to test his scholarly preparation under the guidance of a successful high school teacher.

SPANISH 401. The Teaching of Spanish in Secondary Schools For a description of this course, see LANGUAGE 401, page 91.

Credit: 3 semester-hours

SPANISH 402. Advanced Spanish Grammar and Composition

This course develops a complete review of Spanish grammar and composition as a basis for advanced work in the writing of Spanish. It emphasizes syntax and style, the explanation of forms in the light of historical grammar, and includes a study of selected Spanish readings to determine their suitability for high school use on the basis of diction and grammatical usage.

Credit: 4 semester-hours

SPANISH 404. Modern Spanish Literature: Selected Authors

This course is concerned especially with those Spanish authors whose works are frequently drawn upon for the reading selections in modern Spanish text-books used in high school teaching. Its aim is to present current trends in Spanish literature. Particular attention is devoted to the lives of the authors studied and to the effect of the times on the character of their works.

Credit: 2 semester-hours

SPANISH 405. The Romantic Movement

This course aims to present the literary and historical study of the 19th century—the Romantic Movement—after a survey of the different movements in Spanish literature.

SPANISH 406. Studies in Modern Spanish Literature

This course is concerned with the Renaissance in Spanish literature which began in 1898, following a confused period of political, economic, and social unrest. It traces the literary trends in drama, poetry, and the novel of recent years. Class discussion and individual reports on specific subjects are required.

Credit: 2 semester-hours

SPANISH 407. The New World Before the Coming of the Spaniards

The purpose of this course is to present current knowledge of the remarkable civilizations of the New World (Mayan, Aztec, Incan) as they had developed before the coming of the Europeans placed them under Old World direction. Today it is important that teachers, particularly those of Spanish and social studies, acquire much wider horizons in matters respecting our Hispanic-American neighbors. This course is given in English.

Credit: 2 semester-hours

SPANISH 415. Projects in Spanish and Latin-American Folklore

This course, designed particularly for teachers and students of Spanish, surveys briefly the aims of extra-curricular activities in the field of Spanish teaching and emphasizes especially: (1) the organization of extra-curricular activities, (2) practical instruction in the preparation of materials, songs, dances, costumes, and (3) artistic presentation of the results of the course in a carefully supervised program given on the college campus.

LANGUAGE

Background Course

The students of all college departments are expected to broaden and intensify their command of English by taking the following course arranged by the Language Department for the junior year. It aims to arouse their intellectual curiosity in the origin, development, and range of language in general, and of English in particular, so that henceforth they will be more word-conscious and their teaching will benefit by an extended and more sensitive use of their mother tongue.

THE THIRD YEAR

Language 300. Foundations of Language For a description of this course, see page 45.

Credit: 2 semester-hours

THE FOURTH YEAR

Professional Courses

Seniors in the Department of Foreign Languages are expected to gain a critical insight into modern methods of foreign language teaching. An analysis of actual practice motivates the systematic survey of this field of special interest with a theoretical selection of aims and procedures in preparation for the teaching of foreign languages in high schools.

LANGUAGE 401. The Teaching of Foreign Languages in Secondary Schools.

The work of this course is focused on such topics as the following: values of foreign language teaching; ultimate and immediate aims in foreign language teaching; survey of the outstanding methods, pronunciation, oral work, reading, grammar, reviews, realia, examinations, tests, supervised study, etc. The course consists of readings and discussions, lesson planning and demonstrations, and organization of materials for use in student-teaching.

Credit: 3 semester-hours

LANGUAGE 412. Foundations of Language, Advanced Course

This course continues the study of linguistics in general and of our own Indo-European group in particular. It focuses especially upon the origin, history, and development of Latin, French, German, Spanish, and English phonology, morphology, and vocabulary. Through lectures and collateral reading the student is acquainted with the latest research findings in linguistics. Maps and charts are required for the graphic presentation of each unit of work, and an individual report on some phase of this field is presented to the class by every student.

LANGUAGE 415. World Languages

This course presents a practical introduction to the learning of any foreign language. Through the use of International Phonetic Symbols and Linguaphone Records, students acquire skill in the recognition and identification of foreign speech sounds. Ear, lip, and tongue training are combined to insure adequate ability in the pronunciation of foreign sounds with scientific accuracy. The course is designed for all students in the language field.

THE DEPARTMENT OF MATHEMATICS

The training of teachers of mathematics for junior and senior high schools demands that much care be used in selecting students for such training and that students so selected receive training which emphasizes sound scholarship, a broad cultural background, and an acquaintance with the problems which arise in the teaching of mathematics in the modern secondary school.

Scholarship in mathematics can result only from continued study of mathematics; it cannot result from a mere review of high school courses. Hence the course of study in mathematics provides for a study of topics in college mathematics with continual emphasis on their use as a background for teaching. Courses have been selected to the end that the student become proficient in various fields of mathematics.

The training in mathematics in a teachers college should differ from that in a liberal arts college or in an engineering college in a number of respects. Since the student is preparing to teach mathematics to secondary school pupils, he must not only understand the uses and limitations of formulas, but must also be able to derive them from simpler ideas; he must not only understand fundamental principles, but must also acquire the facility of making them clear to others, of searching out the obstacles that hinder another's understanding. He must not only have a mastery of the topics he is to teach, but must also see them as an integral part of the subject-matter of mathematics, and know the place of mathematics in the history of civilization and its uses in practical life.

The courses offered by the Department of Mathematics have been selected with the following objectives in view:

- 1. To give the student a review of and practice in those topics in mathematics which he will be required to teach. This is best done by having such review an incidental part of the advanced work in mathematics rather than a repetition of high school subject-matter.
- 2. To professionalize the course so that the student will be conscious of teaching problems and will have abundant practice in logical reasoning and in making lucid explanations.
- 3. To give the student that self-confidence which is the concomitant of a broad knowledge of subject-matter beyond minimum requirements.
- 4. To supply a cultural background and an awareness of the specific contributions which mathematics has made to civilization.
- 5. To make the student aware, through observation and participation in teaching in the College High School, of the character and diversity of the problems arising in teaching mathematics to secondary school pupils.
- 6. To integrate the work with other courses, particularly science, social studies, and economics, so that the student will realize the effectiveness of mathematics as a tool in solving scientific and sociological problems.

No student should attempt to major in mathematics who has not demonstrated his ability by his high school work in elementary intermediate algebra and in plane geometry. The student who has also taken solid geometry, trigonometry, and college algebra will be better prepared for work in the College.

Students who major in mathematics should consult with the Head of the Mathematics Department before selecting a field of minor interest.

The following courses are required of all mathematics majors: MATHEMATICS 101, 102, 201, 202, 301, 302, 308, 401, 402, 404, and 408. MATHEMATICS 304 is required of students who have not had solid geometry in high school and is recommended as an elective for others.

Students who anticipate selecting mathematics as a field of minor interest should consult with the Head of the Mathematics Department before beginning such work. The following courses are recommended for all mathematics minors: MATHEMATICS 101, 102, 201, and 202. If solid geometry has not been studied in high school, MATHEMATICS 304 should also be taken.

All students in the College, except mathematics majors, are required to take MATHEMATICS 300 and 400. Mathematics majors take MATHEMATICS 308 and 408 instead of MATHEMATICS 300 and 400.

THE FIRST YEAR

The mathematics of the first year is organized in one large unit of work. The traditional subjects of college algebra, trigonometry, and analytical geometry are not treated as separate and distinct subjects, resulting in artificial lines of demarcation in the mind of the student, but are interwoven with some of the more elementary portions of calculus, into an integrated course in mathematical analysis. The central idea of the organization is the function concept. The locus concept serves as a secondary theme about which processes, inverse to those previously introduced, are organized.

Elementary mathematical analysis forms an essential part of the required training of the teacher of high school mathematics. Due attention is given to the professionalization of subject-matter by continued application of knowledge previously gained, by creating a desire for further investigation, by repeated application of the scientific method of thinking, by having the student make careful analyses and explanations, and by showing how certain phases of the work may be transferred to high school situations. Twenty observations are made in the College High School. Reports of these observations are required. As an integral part of the students' training, this first year of mathematics serves three purposes: it forms a foundation for further work in mathematics; it forms a background course for the investigation of other sciences; and it gives knowledge and training essential to the teacher of high school mathematics.

MATHEMATICS 101. Mathematical Analysis, Part I

The principal topics are: functions and graphs, linear functions, quadratic functions, polynomial functions, rational and irrational functions, rates of change, differentiation and integration of simple functions, logarithms and logarithmic functions, the theory and use of the slide rule, permutations, combinations and

probability, sequences and series. This semester's work is closely correlated with and forms a review and extension of senior high school mathematics.

Credit: 4 semester-hours

MATHEMATICS 102. Mathematical Analysis, Part II

The chief topics considered are: trigonometric and circular functions, trigonometric formulas, the solution of triangles, inverse circular functions, natural logarithms, exponential and hyperbolic functions, simultaneous equations and determinants, the straight line, loci, the conic sections, polar coordinates, transformation of coordinates and the general second-degree equation in two variables, parametric equations, empirical equations, and an introduction to the analytic geometry of space.

Credit: 4 semester-hours

THE SECOND YEAR

A study of differential and integral calculus is made the second year. The work is a unit and is sequential to that taken the first year. Professionalization is effected, as in the first year, by emphasis on participation in class discussions by the students with emphasis on clear and concise explanations. Students are required to report on thirty observations in the College High School.

MATHEMATICS 201. Calculus, Part I

A clear understanding of the meaning and uses of the derivative, as well as mechanical facility in the computation of the derivative of algebraic and transcendental functions, are the main objectives of this course. Applications of the derivative are studied in determining the form and properties of curves, in solving problems in maxima and minima, in finding roots of equations, in parametric and polar equations, in curvature and the radius and circle of curvature. Other topics are differentials, the theorem of mean value, and its applications.

Credit: 4 semester-hours

MATHEMATICS 202. Calculus, Part II

The use of integration as a process of summation is applied to elementary problems in finding areas enclosed by plane curves, volumes of solids of revolution, the length of a curve, and areas of surfaces of revolution in both rectangular and polar coordinates. Mechanical facility in integration is promoted by a study of the use of various devices in integration and by instruction in the use of tables of integrals. Other topics studied are centroids, fluid pressure work, and series.

Credit: 4 semester-hours

THE THIRD YEAR

The required work in the first semester is the course in Modern College Geometry. In this course the student learns more powerful methods and devices

for solving original exercises in geometry and gains a facility in the construction of geometric proofs by analysis which is valuable in teaching high school geometry. In the second semester a course in *Higher Algebra* is taken which provides the student with similar preparation and confidence for the teaching of algebra in the high school.

Professionalization during this year is emphasized by increased demands on the student in making lucid explanations, and in ability to anticipate difficulties in teaching procedures. He now begins to participate actively in the classes in the College High School as an assistant and is expected to help in diagnosing pupil difficulties and in providing remedial practice. Forty reports on observations are required during the year.

MATHEMATICS 300. The Social and Commercial Uses of Mathematics For a description of this course, see page 47.

Credit: 2 semester-hours

MATHEMATICS 301. Modern College Geometry

This course gives the student a thorough preparation for teaching plane geometry. Effective methods of attack in solving problems are carefully analyzed and applied. An intensive well-organized review of high school geometry emphasizes ways of developing and teaching the more difficult material. This prepares the way for faster progress with new and advanced work, including the more recent developments in plane geometry. Throughout the course special effort is made to correlate the material studied with that of the high school. Representative topics are: the fundamental framework of plane geometry, loci and geometric constructions; fundamental theorems of Ceva, Menelaus, Stewart, Euler, Ptolemy, etc.; homothetic figures, the harmonic range, noteworthy lines and points, systems of circles, and inversion.

Credit: 4 semester-hours

MATHEMATICS 302. Higher Algebra

Among the topics of advanced algebra studied in this course are: a systematic treatment of the foundations of algebra, the development of the number system including complex numbers, the properties of polynomials and methods of solving algebraic equations, the analytic criteria for the constructibility of geometric plane figures, graphs, applications of the calculus and determinants, and related problems in algebraic analysis. At every opportunity this material is correlated with the subject-matter of secondary school mathematics.

Credit: 4 semester-hours

MATHEMATICS 304. Solid Geometry

This course is required of those students majoring or minoring in mathematics who have not had solid geometry in high school, and is an elective for those who desire to review the subject from an advanced point of view. Besides the treatment of the usual theorems, the course emphasizes alternate methods of

proof and application of algebra, plane trigonometry, and elementary analysis to solid mensuration. Modification in teaching as suggested by recent commission reports is stressed.

Credit: 2 semester-hours

MATHEMATICS 308. The Social and Commercial Uses of Mathematics for Mathematics Majors

This course covers in general the same content as Mathematics 300, but it presupposes a broader background in mathematics and an ability to cover the work more thoroughly.

Credit: 2 semester-hours

THE FOURTH YEAR

In the fourth year the course in Applications of Mathematics gives the future teacher an effective background in the use of precision instruments. The course in the Teaching of Mathematics in Secondary Schools coordinates and brings to a focus all of the professionalization of his previous courses. Here his attention is concentrated solely on a careful study of the teaching of mathematics in secondary schools. He becomes acquainted with the literature of the teaching of mathematics and with discussions by leading teachers in mathematical periodicals. In supervised student-teaching the student puts into practice, under expert direction and supervision, in high school classes, the theories and methods he has studied. Thus we have the combination of sound scholarship in mathematics and an apprenticeship under successful high school teachers.

MATHEMATICS 400. Educational Statistics
For a description of this course, see page 47.

Credit: 2 semester-hours

MATHEMATICS 401. The Teaching of Mathematics in Secondary Schools

The student studies the methods of teaching the different units of work in the junior and senior high school. He accompanies this study by observing in the College High School the ways in which these methods are put into practice. He is actively in contact not only with the theory but also with the practice of what he studies. He participates, under the direction of the high school instructors, in organizing material, in making, administering, and marking tests, and in assisting in experimental work. A study of recent trends in the teaching of mathematics, of noteworthy research, of courses in general mathematics, and of modern texts and tests is included.

Credit: 3 semester-hours

MATHEMATICS 402. Applications of Mathematics

The student is taught how to use and adjust those modern instruments of precision which can be used to motivate the teaching of mathematics in the unior and senior high school. Included among these are the slide rule, transit,

sextant, planimeter, plane table, solar telescope, and astronomical telescope with equatorial mountings. Such early instruments as the astrolabe, hypsometer, baculum, and optical square are also considered. The student must also make some of the simpler instruments and devise and solve problems which can be used in classroom instruction.

Credit: 4 semester-hours

MATHEMATICS 404. Readings and Lectures in Mathematics

Lectures are given upon advanced topics in mathematics and on those phases of mathematics which are finding new applications, especially as they are related to the secondary field. Besides a mastery of this lecture material, the student is held responsible for a written report on an approved topic or on specific readings on recent mathematical literature.

Credit: 2 semester-hours

MATHEMATIC: 405. The History of Mathematics

A cultural background in the field of elementary mathematics is furnished by this course. Emphasis is placed on the history of the development of the number systems of elementary mathematics, computational devices, mathematical symbolism, space concepts, and simple logical processes. Other topics treated are: methods of problem solving, historical references in teaching, mathematical recreations, and the biographies of outstanding mathematicians.

Credit: 2 semester-hours

MATHEMATICS 406. Solid Analytic Geometry

A review and extension of the theory of determinants, a study of lines and planes in space, of space-coordinates, transformation of coordinates, loci in space, the sphere, and of quadric surfaces are considered in this course. The study of the general quadratic equation in three variables, invariance under motion, and the classification of numerical equations completes the course.

Credit: 2 semester-hours

MATHEMATICS 407. Advanced Calculus

A study of continuity, the theory of limits, the generalized theorem of the mean, and its extension to series with a remainder term is made in this course. Also studied are partial differentiation with applications to tangent planes, normals, envelopes, and approximations; multiple integration with applications to areas, volumes, center of gravity, pressure, moment of inertia, and work; and the solution of ordinary differential equations of the first order with applications.

Credit: 2 semester-hours

MATHEMATICS 408. Elementary Mathematical Statistics

This first course covers the usual topics in statistics, using calculus as a major tool in the derivation of formulas. Topics included are: types of data and types of measurement; attributes and variables; graphical representation; measures of central tendency and dispersion; moments; binomial, Poisson, and

normal distributions; linear regression and correlation; elements of sampling theory and statistical inference. This course is required of mathematics majors in lieu of MATHEMATICS 400.

Credit: 2 semester-hours

MATHEMATICS 410. Mathematics of Finance

This course introduces the student to the elementary theory of simple and compound interest and leads to the solution of practical problems in annuities, sinking funds, amortization, depreciation, stocks and bonds, installment buying, and building and loan associations. It also discusses the mathematics of life insurance covering the following subjects: the theory of probability as related to life insurance; the theory and calculation of mortality tables; various types of life annuities and insurance policies and reserves. This course is designed to give a helpful background to the mathematics teacher as well as to be an aid to the student of economics and insurance.

THE DEPARTMENT OF MUSIC

The Department of Music offers a threefold program:

- 1. A major in music education for students who wish to teach music in grades five through twelve.
- 2. A minor in music education for students who wish to teach music in combination with an academic subject in grades five through twelve.
- 3. Music courses as cultural background for students who intend to teach academic subjects in the secondary schools.

The Music Major

The music major prepares the student to teach choral and instrumental music, music appreciation, and music theory in the junior and senior high schools. The curriculum includes four areas of subject-matter: music history and appreciation, music theory, applied music, and music pedagogy. Students who wish to major in music are required to have a preliminary conference with the Head of the Music Department at which time they will discuss and demonstrate their qualifications for specialization in this field. Prospective music majors should have performance ability of promise on a primary and a secondary instrument, good musicality, a knowledge of elementary music theory, and give evidence of serious music study throughout the high school years.

The following music courses are required of all music majors: 101, 102, 103, 104, 105A, 105B, 201, 202, 203, 204, 205, 206, 207, 208, 210A, 210B, 301, 302 or 308, 303, 304, 305, 306, 307, 310A, 310B, 401, 402, 406, and 499A. Specialized interests are met through the choice of differentiated required music courses to the amount of four semester-hours in 337, 338, 405, or 410.

In addition, music majors may choose electives in the field of advanced music theory and musicology.

Applied Music

Music majors will choose a primary and a secondary instrument in applied music, one of which shall be piano. The other instruments may be organ, voice, violin, or other band and orchestra instruments. The primary instrument represents the students greatest talent and accomplishment; the secondary instrument, lesser talent and accomplishment. Every music major will give a graduation recital on his primary instrument in the senior year. Students receive a one hour private lesson on the primary instrument and a half hour private lesson (or equivalent class lesson) on the secondary instrument each week. Credit in applied music is based upon accomplishment.

Entrance Requirements in Primary Instruments

1. Piano

a. All major and minor harmonic scales, four octaves, hands together and I, IV, and V chords in each key

b. A little prelude or two part invention by J. S. Bach

c. An easy sonata by Haydn, Mozart, or Beethoven, played from memory d. A composition by a Romantic or modern composer of the student's choice

2. Voice

a. A good natural voice above the average in quality, range, and power

b. Two songs of the student's choice selected from standard voice repertory as suggested in the Voice Syllabus issued by the Griffith Music Foundation, Newark, New Jersey
c. A minimum of two years of piano study

d. Knowledge of French or German

3. Violin

a. All major and minor scales, three octaves

b. An etude selected from Dont. Op. 37 or Kreutzer, Numbers 2 - 20, or equivalent c. A first movement selected from the following concertos: Viotti, Numbers 22, 23; Deberist, Number 9; or Vivaldi, A minor

d. Two movements from a sonata by Handel, Corelli, or Tartini

Entrance requirements for other primary instruments may be had upon request.

Entrance Requirements in Piano, Secondary Instrument

1. Evidence of the satisfactory completion of one of the following:

a. Ferdinand Beyer's Elementary Instruction Book

b. John Thompson's Modern Course for the Piano, First Grade Book

c. Grown-Up Beginner's Book, William N. Felton

2. All major scales, sharps and flats, hands together, two octaves

3. Any two of the following compositions:

a. Minuet, G. Bach, Classic Albums, Book I, B. F. Wood Music Co. b. Sonatina C Major, Op. 36, No. 1, Clementi,—first movement only c. Melody, Schumann, Classic Albums, Book I

Entrance requirements for other secondary instruments may be had upon request.

A student will be admitted with a condition in piano, secondary instrument, provided he has compensatory performance abilities on other instruments. A condition in secondary piano, however, must be removed during the first year. Instruction in sub-credit bearing piano will be taken at the student's expense.

Regardless of whether piano is the primary or secondary instrument, all music students, both majors or minors, are required to meet the following performance standard before they start student teaching:

- 1. Play ten community songs, three of which shall be The Star Spangled Banner, America, and America the Beautiful.
- 2. Play the accompaniment for a choral number suitable for use in the secondary school
 - 3. Transpose at the keyboard the melody of a song
- 4. Play singly and in combination the voice parts of a choral number suitable for use in the secondary school

Ensemble

All music majors are required to participate in two musical organizations throughout the four years. In accordance with ability, the student may choose the a cappella choir, orchestra, band, music workshop, or opera workshop. He will participate continuously throughout the four years in the organization representing his primary instrument. He may alternate membership in other organizations from year to year. Credit for participation in these organizations is not given for the freshman year. Thereafter, a maximum of five semesterhours may be so earned.

Recitals

Faculty recitals and Senior Graduation recitals are given on Sunday evenings in Edward Russ Hall. Student recitals are given bi-monthly on Friday afternoons in Edward Russ Hall. All music students are required to perform in recitals as directed by their applied music teachers and to attend at least two-thirds of these recitals.

Fees for Applied Music

A special fee of \$10.00 per semester is charged each music major for instruction in applied music. A special fee of \$6.00 per semester is charged each music minor for instruction in applied music.

The Music Minor

The music minor prepares the student to teach music in combination with academic subjects in the secondary school. The music minor is begun in the sophomore year and presupposes a major in an academic subject.

Students who wish to minor in music should consult the Head of the Music Department early in the freshman year in order to make up any deficiencies. Music minors are required to meet a minimum standard in piano and to participate in two musical organizations throughout the three years.

The following courses are required of all music minors: 101, 102, 201, 207, 208, 301, 306, and 401.

Music for the General Student

The cultural obligation of the teacher has long been recognized. Teacher education has become increasingly a matter of providing rich cultural backgrounds upon which the teaching of a given subject may be projected. For this reason all students are required to take Music 100, Music Appreciation. In addition, the general student may elect courses in music history and music theory in the junior and senior year. Whenever possible, the content of these courses is related to the student's major field.

All general students are given a music placement test. On the evidence of this test, they are advised to participate in the musical organizations of the College such as the *a cappella* choir, orchestra, band, music workshop, or opera workshop.

THE FIRST YEAR

The student begins his career as a music major with a course in Music Appreciation required of all freshmen. In addition, he takes Sight Reading and Ear Training, the primary and secondary instruments, and participates in the various musical organizations of the College.

MUSIC 100. Music Appreciation

For a description of this course, see page 45.

Credit: 1 semester-hour

MUSIC 101. Sight Reading and Ear Training

This course aims to develop basic skills in music reading. It includes notation and terminology, major and minor scales, intervals, triads, ear and eye recognition of commonly used tonal and rhythmic groups, and written dictation of a standard repertory of thematic materials. This course meets three hours weekly and is credited on a laboratory basis.

Credit: 2 semester-hours

MUSIC 102. Advanced Sight Reading and Ear Training

This course is a continuation of MUSIC 101. It includes a study of the more difficult tonal and rhythmic groups, reading parts in various clefs, harmonic ear-training, and dictation. The subject-matter is taught through standard song literature, including folk and art song, chorale and oratorio. This course meets three hours weekly and is credited on a laboratory basis.

Prerequisite: MUSIC 101.

MUSIC 103. Primary Instrument, Part I

MUSIC 104. Primary Instrument, Part II

MUSIC 105A. Secondary Instrument, Part 1

Credit: ½ semester-hour

MUSIC 105B. Secondary Instrument, Part II

Credit: 1/2 semester-hour

MUSIC 130A and B. A Cappella Choir

MUSIC 131A and B. Orchestra

MUSIC 132A and B. Band

The student selects two of the above organizations. Each organization meets two hours weekly.

Credit: O semester-hour

THE SECOND YEAR

In the second year the music major continues work on the primary and secondary instruments, takes Harmony and Epochs in Musical Development, and begins the study of orchestra and band instruments.

MUSIC 201. Harmony

This course aims to give a practical treatment of harmony as related to the classroom. It includes a study of rhythms, intervals, primary and secondary triads, seventh chords, inversions, diatonic and chromatic progressions. Special attention is given to the functional aspects of harmony as applied to the piano keyboard in the harmonization of melodies, transposition, and improvisation of accompaniments.

Prerequisite: MUSIC 102

Credit: 4 semester-hours

MUSIC 202. Advanced Harmony

This course is a continuation of MUSIC 201. It includes a study of foreign chords, altered chords, modulation, enharmonic tones, and the rhythmic and harmonic principles of musical form. Application is made in four-part writing, in harmonic analysis, and on the piano keyboard.

Prerequisite: MUSIC 201

Credit: 4 semester-hours

MUSIC 203. Primary Instrument, Part III

This course is a continuation of MUSIC 104.

Credit: 1 semester-hour

MUSIC 204. Primary Instrument, Part IV

Credit: 1 semester-hour

MUSIC 205. Orchestra Instruments, Part I

This course provides practical experience with the stringed instruments in the orchestra and aims to develop elementary playing skills on the violin and string bass. It also includes the study of percussion instruments. The materials and procedures used are those recommended for the teaching of these instruments in the classroom. This course meets two hours weekly and is credited on a laboratory basis.

Prerequisite: MUSIC 102

Credit: 1 semester-hour

MUSIC 206. Band Instruments, Part II

This course is a continuation of MUSIC 205. It provides practical experience with band instruments and aims to develop elementary playing skills on wood and brass winds. This course meets two hours weekly and is credited on a laboratory basis.

Prerequisite: MUSIC 205

Credit: 1 semester-hour

MUSIC 207. Epochs in Musical Development, Part I

This course makes a study of the medieval and polyphonic epochs in musical development. It deals with music in Greek culture, music of the early Christian Church, secular music makers of the Middle Ages, music of the Renaissance, the rise of instrumental music, and the growth of choral polyphony

culminating in the works of Bach. Students make a chronological chart showing parallel developments in music, art, literature, and history.

Credit: 2 semester-hours

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MUSIC 208. Epochs in Musical Development, Part II

This is a continuation of MUSIC 207, and makes a study of the classic and romantic epochs in musical development. It includes study of the music of Haydn, Mozart, Beethoven, Schubert, Schumann, Brahms, Berlioz, and Liszt. Special attention is given to directed listening and to building an ear repertory of selected compositions.

Prerequisite: Music 207

Credit: 2 semester-hours

MUSIC 209. Music Literature

This is a survey course in music literature and includes a study of folk song, art song, opera, oratorio, idealized dance forms, instrumental suite, sonata, symphony, and symphonic poem. Abundant use of musical illustrations, directed listening, and music making, acquaints the student with great master pieces of musical art. This course aims to make intelligent and appreciative radio listeners and concert goers. It is recommended as an elective for the general student.

Prerequisite: MUSIC 100

Credit: 2 semester-hours

MUSIC 210A. Secondary Instrument, Part III This is a continuation of MUSIC 105B.

Credit: 1/2 semester-hour

MUSIC 210B. Secondary Instrument, Part IV

Credit: 1/2 semester-hour

MUSIC 230A and B. A Cappella Choir

Music 231A and B. Orchestra

MUSIC 232A and B. Band

MUSIC 233A and B. Music Workshop

MUSIC 234A and B. Opera Workshop

The student selects two of the above organizations. Each organization meets two hours weekly and is credited on a laboratory basis.

Credit: ½ semester-hour each

THE THIRD YEAR

The first two years of the music major curriculum have been devoted primarily to developing skills in applied music and to pursuing sequential courses in music theory and history. In the third year the skills and knowledge

thus gained are applied to professionalized subject-matter courses in choral and instrumental school music.

MUSIC 301. Choral Technique

This course aims to develop the voice of the student through the singing of choral material suitable for use in the high school. It includes a study of the principles of tone production, diction, phrasing, and interpretation, illustrations of which are made in graded song materials for various vocal combinations. Special attention is given to testing and classification of voices, balance of parts, rehearsal routine, accompaniment playing, and conducting. This course includes observation and participation in the College High School Chorus.

Prerequisite: MUSIC 202

Credit: 2 semester-hours

MUSIC 302. A Cappella Choir and Choral Conducting

This course deals with the theory and practice of the *a cappella* choir. It includes a study of the principles of group tone production, phonetics as related to singing, tuning, posture, techniques of choral conducting, interpretation, and score reading. A feature of this course is the study of a selected list of choral literature suitable for use in school, church, and community. Outstanding students are given an opportunity to conduct the College A Cappella Choir.

Prerequisite. MUSIC 301

Credit: 2 semester-hours

MUSIC 303. Primary Instrument, Part V

This course is a continuation of MUSIC 204.

Credit: 1 semester-hour

MUSIC 304. Primary Instrument, Part VI

Credit: 1 semester-hour

MUSIC 305. Orchestration

This course makes a study of the range, tuning, fingering, transposition, and use of all instruments in the orchestra and band. It includes practical arranging for various combinations of instruments and the completion of a full score for band or orchestra. Special attention is given to the playing and transposition of parts at the keyboard.

This course includes observation in the College Orchestra.

Prerequisite: MUSIC 206

Credit: 2 semester-hours

MUSIC 306. High School Orchestras and Bands

This course deals with the organization of high school orchestras and bands, selection, purchase and care of instruments, evaluation of teaching ma-

terials, techniques of class instruction, substitution of parts, elementary conducting, rehearsal routine, marching band and twirling. Students learn a repertory of music suitable for use in high school orchestras and bands. This course includes observation and participation in the College High School orchestra.

Prerequisites: MUSIC 205, 206

Credit: 2 semester-hours

MUSIC 307. Music Form and Analysis

This course provides application of all branches of music theory, in history, and performance in the analysis of vocal and instrumental forms. It includes a study of two and three part song forms, the dance suite, rondo, variation, and sonata. This course is closely related to the student's work in applied music.

Prerequisite: MUSIC 202

Credit: 2 semester-hours

MUSIC 308. Voice Training

This course aims to provide instrumentalists with basic voice training. It is concerned primarily with the development of the individual voice and includes a study of the principles of tone production, breathing, diction, phrasing, and interpretation. The song material and teaching procedure used in this course are those used in the teaching of class voice in the senior high school. This course meets two hours weekly and is credited on a laboratory basis.

Prerequisite: Music 102

Credit: 1 semester-hour

MUSIC 310A. Secondary Instrument, Part V
This is a continuation of MUSIC 210B.

Credit: 1/2 semester-hour

MUSIC 310B. Secondary Instrument, Part VI

Credit: 1/2 semester-hour

MUSIC 330 A and B. A Cappella Choir

MUSIC 331A and B. Orchestra

MUSIC 332A and B. Band

MUSIC 333A and B. Music Workshop

MUSIC 334A and B. Opera Workshop

The student selects two of the above organizations. Each organization meets two hours weekly and is credited on a laboratory basis.

Credit: 1/2 semester-hour each

MUSIC 337. The Opera

This course makes a study of representative Italian, French, and German operas. It includes a class analysis of each opera and the illustration of its principal numbers by means of recorded music and the piano. Special attention is given to those operas presented in the junior performances at the Metropolitan Opera, New York City.

Credit: 2 semester-hours

MUSIC 338. The Symphony

This course makes a study of representative symphonies, orchestral suites, overtures and tone poems by classic, romantic, and modern composers. Musical illustrations are given by means of recorded music and the piano. The content of this course is related to the Youth Concerts at Carnegie Hall, New York City.

Credit: 2 semester-hours

THE FOURTH YEAR

In the first semester of the fourth year the student gives his graduation recital in his primary instrument and completes the required courses in Modern Music and The Teaching of High School Music prior to student teaching. Upon return from student teaching he carries his professional preparation further in the workshop work, in High School Music, and in differentiated required courses in choral and instrumental music.

MUSIC 401. The Teaching of Music in Secondary Schools

This course deals with the aims, content, and procedure in the teaching of music in the junior and senior high school. It includes a study of the adolescent voice, the listening lesson, general and elective music courses, extracurricula music activities, and special programs. Lesson plans and units of work are prepared and presented for criticism.

Observation and participation in the College High School are required.

Credit: 3 semester-hours

MUSIC 402. Primary Instrument, Part VII and Senior Recital This course is a continuation of MUSIC 304.

Credit: 1 semester-hour

MUSIC 405. Orchestra Conducting and Score Reading

This course aims to develop skills in orchestra conducting and score reading. It includes a study of the particular type of ear training needed in conducting, the technique of the baton, score reading, and interpretation. A special feature of this course is the presentation of a large amount of musical examples taken from standard repertory which contain practically all technique.

nical and psychological problems which face the conductor. Practical experience in conducting is given with the use of recorded music, piano, and the College Symphony Orchestra.

Prerequisite: Music 305

Credit: 2 semester-hours

MUSIC 406. Modern Music

This course aims to interpret modern music in terms of the social, political, and cultural life of our times. It includes a study of the music of Debussy, Richard Strauss, Schoenberg, Stravinsky, De Falla, Hindemith, Bartok, Shostakovich, and others. Special attention is given to the relation of modern music to other forms of modern art expression.

Credit: 2 semester-hours

MUSIC 407. The Development of the Opera

This course deals with the origin, development, and characteristics of opera in the Italian, French, German, and Russian schools. Class analyses are made of representative operas of these schools. The content of this course is related to the Saturday afternoon broadcasts from the Metropolitan Opera, New York City. Special attention is given to building an ear repertory of operatic music heard over the radio.

Credit: 2 semester-hours

MUSIC 408. Wagner Music Dramas

This course deals with the operas and music dramas of Richard Wagner. It includes a study of Wagner's artistic ideals and their application to his compositions. Special attention is given to those works which have their sources in great literature, as the Ring of the Nibelung, Parsifal, and Tristan and Isolde. This course carries field work at the Metropolitan Opera, New York City.

Credit: 2 semester-hours

MUSIC 409. Counterpoint

This course aims to provide a practical treatment of counterpoint for music students. It includes analysis of the works of the sixteenth century masters of vocal polyphony with enough of original work to insure a grasp of the principles involved. Functional aspects are stressed in the writing of inner voice parts, descant, round, and canon.

Prerequisite: MUSIC 202

Credit: 2 semester-hours

MUSIC 410. Composition

This course aims to develop the creative power of the student in the composition of small vocal and instrumental forms. Special attention is given to the functional aspects of composition in word setting, writing accom-

paniments, and improvisation. Selected compositions are performed in concert at the close of the course.

Prerequisites: Music 202

Credit: 2 semester-hours

MUSIC 411. Beethoven

This course deals with the life and works of Beethoven and includes a study of the composer's sonatas, concertos, art songs, opera, and mass. Illustrations are given by means of the piano, voice, and recorded music. Students are expected to acquire an ear repertory of thematic material selected from the works studied.

Credit: 2 semester-hours

MUSIC 412. Beethoven's Master Works

This course makes an intensive study of Beethoven's symphonies and string quartets. Illustrations are given by means of the piano and recorded music. A feature of this course is directed radio listening and concert attendance. Although the course is a continuation of MUSIC 411, Beethoven, it is a separate unit and may be taken without the preceding course.

Credit: 2 semester-hours

MUSIC 413. Masters of the Symphony

This course aims to provide the student with an understanding and appreciation of the classic and romantic symphony through the study of the symphonies of Haydn, Mozart, Beethoven, Schubert, Schumann, and Brahms. The content of this course is related to the weekly broadcasts of the Philharmonic Symphony Orchestra of New York.

Credit: 2 semester-hours

MUSIC 414. Modern Symphonic Forms

This includes a study of the post-romantic symphonies of Bruckner, Mahler, Dvorak, Franck, Tschaikowsky, and Sibelius; the symphonic poems of Strauss, Smetana, and Debussy, and the orchestral suites of Rimsky-Korsakoff, Ravel, and Stravinsky. Special attention is given to building an ear repertory of symphonic music heard over the radio.

Credit: 2 semester-hours

MUSIC 416. Music in Modern Society

This course aims to interpret the nature, function, and forms of music in modern society in terms of the social, political, and cultural forces which have shaped it. It includes a study of the music of the church, Catholic and Protestant, royal patrons of music, nationalism in music, music and politics, music and propaganda, music and industry, and music and entertainment. Because of the social interpretation given music, this course is particularly recommended to majors in the social studies.

Credit: 2 semester-hours

MUSIC 417. American Music

This course provides a survey of American folk and art music as related to various social, economic, political, and cultural epochs in the history of our country. It deals with the European backgrounds and native sources of American music, the growth of the American idiom in music, and its use in our contemporary musical life. A special feature of the course is the making and producing of programs of American music suitable for use in school and community.

Credit: 2 semester-hours

MUSIC 418. The Music of Russia

This course provides a survey of Russian music from the Czarist régime down to the modern Soviet. It aims to interpret Russian music in terms of the social, political, and cultural forces which have shaped it, and includes study of the music of Glinka, Balakerif, Borodin, Cue, Mussorgsky, Rimsky-Korsakoff, Tschaikowsky, Stravinsky, and Shostakovich. Because of the social implications, this course is particularly recommended to students of the social studies.

Credit: 2 semester-hours

MUSIC 420. The Art Song

This course provides a survey of the art song and includes a detailed study of the art songs of Beethoven, Schubert, Schumann, Brahms, Wolf, and Strauss. Special attention is given to the relation of music and poetry. A feature of this course is the performance of art songs by guests of the class and attendance at art song recitals in New York City.

Credit: 2 semester-hours

MUSIC 422. Chamber Music

This course provides a survey of chamber music and includes a detailed study of the string trio, quartet, and quintet by classic, romantic, and modern composers. The content of this course is related to the Sunday afternoon broadcasts of the New Friends of Music and Frick Art Museum concerts in New York City.

Credit: 2 semester-hours

MUSIC 423. Choral Masterworks

This course provides a survey of choral masterworks from Palestrina to Stravinsky. It includes a detailed study of Bach's B Minor Mass, St. Matthew Passion; Handel's Messiah; Beethoven's Missa Solemnis; Mendelssohn's Elijah; Verdi's Requiem and other great choral works. The content of this course is related to the current musical season in New York City.

Credit: 2 semester-hours

MUSIC 424. A Survey of Wind Instrument Music

This course includes a survey of music for solos, small ensembles, and full band with emphasis on the literature available for brass and wood wind

players in high school. Members of the college band are available as a laboratory group so that the performance of all music under consideration is possible. Special attention is given to the music originally composed for wind instruments. New music of all publishers is available for examination and evaluation. The content of the course is determined in part by the needs of the teachers in the field.

Credit: 2 semester-hours

MUSIC 425. Music of the Romantic Period

This course deals with the romantic spirit in music as expressed in the works of Schubert, Schumann, Mendelssohn, Chopin, Berlioz, Liszt, and others. It includes a study of program music, piano and song literature, and the rise of national schools of musical composition. Representative works are studied through performance, recordings, and radio listening. Special attention is given to parallel aspects of Romanticism in literature and the visual arts.

Credit: 2 semester-hours

MUSIC 426. Survey of Music Literature

This is a survey course in Music Literature and includes a study of folk song, art song, oratorio, opera, idealized dance forms, instrumental suite, sonata, symphony, and symphonic poem. Abundant use of musical illustration, directed listening, and music making acquaint the student with great masterpieces of music which should be the possession of every generally cultured person. This course is designed for the general student and aims to make intelligent and appreciative consumers of music. It is a non-technical course and attempts to make intelligent and appreciative radio-listeners and concert goers. Special attention is given to the relation of music to English literature and the social studies.

Credit: 2 semester-hours

MUSIC 427. Audio-Visual Aids in Music Education

This course deals with the selection, evaluation, coordination, and use of audio-visual aids in the teaching of school music. It includes record materials, radio programs, various types of sound equipment, kodachrome slides, the opaque projector, and films and film strips. This course provides four laboratory periods for demonstration and instruction in the use of equipment.

Credit: 2 semester-hours

MUSIC 430A. A Cappella Choir

MUSIC 431A. Orchestra

MUSIC 432A. Band

Music 433A. Music Workshop

MUSIC 434A. Opera Workshop

MUSIC 113

The student selects two of the above organizations. Each organization meets two hours weekly and is credited on a laboratory basis.

Credit: 1/2 semester-hour each

MUSIC 499A. Workshop in High School Music

This course deals with special phases of high school music. It is organized on the unit plan and includes music for boys, folk song dramatizations, integration of music with other subjects, music appreciation, visual aids, small vocal and instrumental ensembles, operettas, pageants, and festivals. Students are given opportunity to work out units in fields of special interest.

Prerequisite: Music 401

Credit: 2 semester-hours

MUSIC 499B. Workshop in School Music

This course is designed primarily for music teachers-in-service who wish to work out projects for use in their respective schools. The content of this course is determined by needs in the field. It may include folk song dramatizations, small vocal and instrumental ensembles, the integration of music with other subjects in the curriculum, music for boys, visual aids in music pageants, festivals, and materials for special programs. This course provides the teacher with a number of units of work suitable for classroom use.

Credit: 2 semester-hours

THE DEPARTMENT OF SCIENCE

Students who are interested in preparing themselves to teach science in high school should consider carefully the present-day requirements for this kind of work. As a result of careful investigations we have extensive information concerning the activities of science teachers in secondary schools. It is not wise for a student to take work in one science only since full-time teaching positions in a single subject are seldom open to a first-year teacher. Most beginners teach two or more science subjects and often a non-science subject as part of the instructional load. It is, therefore, required that a student major in one branch of science and minor in another.

Since it is found by careful investigation that mathematics appears more frequently than any other subject in the combinations of subjects taught by science teachers, students specializing in science should plan to include as many mathematics courses as possible in the undergraduate program.

Students who major and minor in science take: Mathematics 101; Biology 101, 102, 201, 202, 203; Chemistry 101, 102, 405, 406; either Biology 402 and 409 or Chemistry 202 and 203; Physics 101, 102, 402; and Science 401, and 404.

Students who major in another department and minor in a science field secure approval of the minor program by consultation with the Head of the Science Department.

In addition to the minimum program as outlined above the science majors have a regular program of visits to the high-school science courses in the College High School as follows:

Freshman Year One visit each week during the school year in junior-high-school science classes

Sophomore Year One visit each week in the high-school biology course

Junior Year Two visits each week in the chemistry and physics classes

Senior Year In the fall semester seniors pursue two high-school observations by special assignments in the six-year science program.

THE FIRST YEAR

The first year is planned to give the student an insight into the role that science has played and is still playing in the drama of life. Specialization during this year begins with work in biology.

Science 100A. Survey of Physical Science For a description of this course, see page 46.

Credit: 4 semester-hours

SCIENCE 100B. Survey of Biology

For a description of this course, see page 46.

Credit: 4 semester-hours

SCIENCE 100C. The Earth Sciences

For a description of this course, see page 46.

Credit: 2 semester-hours

BIOLOGY 101 and 102. General Botany (Morphology and Physiology of Flowering and Non-Flowering Plants)

This course acquaints the student with the methods and tools of science and develops an understanding of the importance of plants to mankind. Morphology and physiology of the cell and of the plant as a whole are considered first. A survey of the plant kingdom with emphasis on structural development and economic importance follows in the second semester.

Credit: 4 semester-hours each

THE SECOND YEAR

The science work in this year is planned for both students majoring in the department and for those minoring in the department. Those minoring in the department are advised to take BIOLOGY 101 and 102, or CHEMISTRY 101 and 102, or PHYSICS 101 and 102.

BIOLOGY 201 and 202. General Zoology (Biology of Invertebrates and Vertebrates)

This course in general zoology is designed to give students a broad understanding of the important facts regarding animal life that should be of interest to them and to those whom they are to instruct. Students are taught the peculiarities of structure and physiology of different animal types, and this knowledge is employed as a working basis for deductions made regarding the taxonomy, the economic importance, and the probable course of evolution of the many diverse forms. Particular emphasis is given to the problems connected with man's relations to his environment.

Credit: 4 semester-hours each

CHEMISTRY 101 and 102. General College Chemistry

The course provides opportunity for mastering the fundamentals of chemistry, for understanding the numerous and far-reaching effects of contributions of chemistry to modern living, for training in scientific method, for developing facility in taking and utilizing laboratory notes, and for learning to use standard reference books. The laboratory contains many experiments of value for demonstration in high school chemistry. A major portion of the second semester's laboratory work is qualitative analysis. Accompanying such laboratory assignments are supplementary questions requiring reading of library reference books in chemistry.

Credit: 4 semester-hours each

BIOLOGY 203. Introduction to Field Biology

In this required course, the students live for ten days at the New Jersey State School of Conservation in the Stokes State Forest where they have the outdoors as their laboratory. Field trips are made to various types of habitats in order to acquire an understanding of the meaning and significance of a "balanced outdoor society." What occurs when this "balance" is disturbed is observed, and methods of and reasons for it are discussed. Taxonomy, ecology, and conservation are stressed during this concentrated period of outdoor living.

Credit: 2 semester-hours

THE THIRD YEAR

The work in the third year is planned for those who major or minor in science and for those who wish to choose electives in the field of science.

CHEMISTRY 405. Organic Chemistry

The course covers the chemistry of carbon compounds and gives increased facility and experience in manipulating complicated chemical apparatus. It treats of the role of chemistry in life processes, including the synthesis and adaptation of carbon compounds in industry, in medicine, and in daily living. The first semester's work covers the chemistry of simple chain compounds and includes fats and carbohydrates.

Credit: 4 semester-hours

CHEMISTRY 406. Organic Chemistry

The work of this semester covers the chemistry of multiple functional chain compounds, the ring compounds, proteins, vitamins, hormones and the application of these compounds in industry, in foods, and in medicine.

Credit: 4 semester-hours

PHYSICS 101 and 201. General College Physics

A study of mechanics of fluids and solids, properties of matter, and heat energy is followed in the second semester by a consideration of sound, theories of light, and electricity and magnetism. The course consists of demonstrations, lectures, discussions, problem-solving, and laboratory experiments.

Credit: 4 semester-hours each

THE FOURTH YEAR

All students majoring in the department are required to take SCIENCE 401, The Teaching of Science in Secondary Schools. This course, together with an increased amount of observation and participation in the College High School and with courses in the Integration Department, serves as a means of coordin ating the entire work of the department and of preparing the student for the work in supervised teaching he is to do in the succeeding semester. The staff members of the department cooperate with the Integration Department in supervising this work.

SCIENCE 401. The Teaching of Science in Secondary Schools

The chief purposes of this course are: to review the educational objectives of science in public schools; to consider a program of instruction planned for all grades of the public school system; to study the chief aids to instruction such as texts, manuals, workbooks, tests, and materials for the enrichment of teaching; to make a critical review of standards of classroom and laboratory instruction; to observe junior high school classes at work in science; and to participate in classroom activities in biology, chemisty, and physics prior to student-teaching. This course is required of all science majors.

Credit: 3 semester-hours

SCIENCE 401D. The Teaching of Aviation in Secondary Schools

This course covers the study of state aviation programs, texts, bulletins, free material for school use, demonstration equipment, tests, working models, visual aids, and references needed to reach aerodynamics, aircraft engines, meteorology, navigation, and aircraft communication in high schools. Field trips to airports and aviation industries are included.

Credit: 2 semester-hours

SCIENCE 404. Problems in the Teaching of Science

When a student has completed the assignment in student-teaching in a public high school in the State of New Jersey and has accumulated some experience with the problems of high school science instruction, he returns to the college campus for an intensive study of a limited number of problems in a single field of science. The student concentrates his attention on general science, biology, chemistry, or physics for this period. This course is mainly a study of the published investigations dealing with curriculum construction, evaluation of current practices in junior and senior high school courses, and the psychology of learning in science.

Credit: 2 semester-hours

ELECTIVES

SCIENCE 405A. Field Studies in Science—Autumn

Northern New Jersey is world noted for the abundance and variety of its minerals. One of the rare ones, franklinite, receives its name from the town in which it is mined. A federal geologist has listed one hundred and forty-eight minerals found in this part of the state. With its sandstone, limestone, and igneous outcrops, its fault line, valleys, cliffs, and glacial moraine, the Montclair region affords excellent study of physiographic features and processes. A study of rocks, minerals, physiographic features, and of trees in summer and winter conditions constitutes the major emphasis of this course. Most of the work is done afield. Identified rock-mineral and twig collections are required of each student.

Credit: 2 semester-hours

SCIENCE 405B. Field Studies in Science—Spring

A wooded campus, nearby streams, ponds, and marshes afford excellent study of birds in the migration season. The main emphasis of the course is given to bird identification and study in laboratory, museum, and field. Laboratory identification of forty or more of our common birds prepares the student for the avalanche of species that comes to us in early May. Attention is given to identification of trees and to a study of their leaves, flowers, and fruits. One trip each is given to a study of pond and brook plants and animals. The study of rocks and minerals, begun in the fall semester, is continued.

Credit: 2 semester-hours

SCIENCE 405C. Field Studies in Science—Summer

Emphasis in this course is given to a study of the ecology of plant life, of wild flowers, of brook and pond life, and of insects. Some attention is given to summer birds, trees in summer condition, and to minerals of the region. Most of the work is given to studies afleld and to work with specimens collected on these trips. Inasmuch as most of the work is in the field, it can be adapted to the needs of the individual students.

Credit: 2 semester-hours

SCIENCE 410. Junior High School Science Demonstrations

This course covers the methods of experimental instruction in grades seven, eight, and nine. A detailed study is made of about three hundred demonstrations.

Credit: 4 semester-hours

SCIENCE 411. Problems in Field Studies in Science

In this course each student selects a phase of field science in which he does advanced research under the guidance of the instructor. Plant ecology, bird-life, pond life, fungi, tree diseases, and insect life are a few of the areas from which the student may choose.

Prerequisites: Field Studies in Science or its equivalent plus at least 12 points of biology.

Credit: 2 semester-hours

SCIENCE 412. Water Analysis and Purification

This course covers the phases of water inspection, analysis and purification of value in safeguarding public and private water supplies, and in securing potable water from questionable sources. The work consists of field trips to water purification plants, sewage disposal plants, board of health laboratories; lectures and laboratory experiences in analysis of water for the presence of harmful materials; the preparation, testing, and use of chemicals needed in treating both drinking and industrial water.

Credit: 4 semester-hours

BIOLOGY 402. Mammalian Anatomy and Histology

A study is made of the gross structure of a typical mammal and of the

structural peculiarities of its various tissues. This course prepares the student for the study of human physiology.

Prerequisites: BIOLOGY 201 and 202

Credit: 4 semester-hours

BIOLOGY 406. Animal Histology

This course includes a careful study of histological technique as illustrated by preparations made from various animal tissues.

Prerequisites: BIOLOGY 201 and 202

Credit: 4 semester-hours

BIOLOGY 407. Comparative Embryology

A study is made of the stages in development and factors influencing the development of different types, particularly the vertebrates. Students in this course follow carefully the development of the chick through the earlier stages. Serial sections of entire chick embryos in different stages of development are prepared by individual students and used as a basis for the study of the development of tissues and organs of the animal. Applications of these details of vertebrate development to the development of the mammal are based on observations made through the dissection of pig embryos.

Prerequisite: BIOLOGY 402, Mammalian Anatomy and Histology

Credit: 4 semester-hours

BIOLOGY 408. Biological Technique

This course is designed to furnish the prospective teacher of biology with the technical details necessary to enable him as a secondary school teacher to handle successfully biological materials and experiments and demonstrations in which these materials are employed. Students are trained in methods of collecting and preserving plants and animals for use in the laboratory and class-room. Study is made of the proper methods of preparing illustrative materials with special emphasis laid upon the purpose of these materials.

Prerequisites: Biology 101, 102, Botany, and 201 and 202, Zoology

Credit: 4 semester-hours

BIOLOGY 409. Human Physiology

A study is made of normal and abnormal physiology based on previous study of mammalian anatomy. In addition to an analysis of the part played by organs and tissues in carrying out the essential functions of the body, special attention is given to problems of hygiene and sanitation. Applications of the above problems are made in reference to children of school age, and the physical condition of individual pupils is correlated with their behavior in the classroom.

Prerequisites: A course in Comparative Anatomy or BIOLOGY 402

Credit: 4 semester-hours

BIOLOGY 410. Comparative Anatomy of the Vertebrates

The aim of this course is to trace the probable course of evolution of the vertebrate type with partial reference to the history of the human body.

Prerequisites: BIOLOGY 201 and 202

Credit: 4 semester-hours

BIOLOGY 412. Genetics from Mendel to Lysenko

This course considers the scientific basis of the gene concept and its support in experiment from Mendel's work to the present allegations of the Lysenko School. Documents of some of the milestones in the history of the science are studied, and the adherence to scientific method carefully noted. The wide uses of the science in plant and animal improvement and the discoveries related to man's heredity make an integral part of the study. The course helps the teacher of biology or social studies to discriminate between what is scientifically known and what is political philosophy in genetics. Laboratory exercises supplement lectures and discussion.

An elementary college course in biology is the only prerequisite, and this may be waived in approved cases.

Credit: 2 semester-hours

BIOLOGY 413. Economic Botany

The discussion of the importance of plants and plant life to the world in general and to man in particular is the principal aim of this course. The economic importance of bacteria, fungi, and other lower plants is considered as well as that of the seed plants. The student should have a knowledge of general botany for an understanding of this course.

Credit: 2 semester-hours

CHEMISTRY 201. Analytical Chemistry: Qualitative Analysis

The aims of this course are: a knowledge of the preparation of solutions; the separation and identification of the metallic and non-metallic ions; training in the techniques of careful note taking and interpretation of laboratory manipulation to secure information. The class work covers a systematic study of chemical equilibrium and its use in qualitative analysis. The laboratory work continues the work started in general chemistry and involves the complete analysis of several general unknowns.

Prerequisites: CHEMISTRY 101, 102

Credit: 4 semester-hours

CHEMISTRY 202. Analytical Chemistry: Quantitative Analysis

The purposes of the course are: to develop and apply the fundamental principles of solutions; to perfect the techniques of chemistry; to analyze quantitatively substances; to use the chemical balance. The class work covers that chemistry which is needed for gravimetric and volumetric analysis. The laboratory work involves gravimetric analysis, acidimetry and oxidation-reduction reactions.

Prerequisites: CHEMISTRY 101, 102

Credit: 4 semester-hours

CHEMISTRY 203. Analytical Chemistry: Applied Quantitative Analysis

The purposes of this course are: to develop techniques needed to use routine methods of analysis of common substances; to give experience in the application of chemistry to soil analysis, blood analysis, food analysis, and household

preparations. The class work covers the electrochemical theory of oxidation-reduction, the modern atomic theory and its applications to understanding analytical procedure, theory of colorimetry, and the measuring of hydrogen ions.

Prerequisites: CHEMISTRY 101, 102

Credit: 4 semester-hours

CHEMISTRY 407. Advanced Quantitative Analysis

This course is adapted to the needs and preparation of students. The work is mainly instrument analysis applied to control work in industry, agriculture, and biochemistry.

Credit: 4 semester-hours

CHEMISTRY 408A. Industrial Chemistry, Part I

The purpose of this course is to enable science teachers to understand the type of chemical industries in the State of New Jersey and the nature of their problems. A survey is made by lectures, reports, and trips to plants of the chemical industries in the state. This section of the course stresses the importance and the characteristics of chemical industry, the various unit operations used by the industry to carry out chemical reactions, the controls used to insure quality, organization for research, and the type of workers employed.

Prerequisites: General and organic chemistry, or special permission of the

instructor

Credit: 2 semester-hours

CHEMISTRY 408B. Industrial Chemistry, Part II

This course is a study of the chemical industries of the metropolitan area utilizing the methods outlined in Chemistry 408A. Also, a study is made of the economics of chemical industry, chemistry and industry in general, and the effects of chemical discoveries upon living conditions.

Prerequisites: General and organic chemistry, or special permission of the

instructor

Credit: 2 semester-hours

CHEMISTRY 411. Physical Chemistry, Part I

This course, the first half of a year's work in physical chemistry, deals with gases, liquids, crystals, physical properties and electrolytes, colloids, thermochemistry, and homogeneous and heterogeneous equilibria.

Prerequisites: General college chemistry, analytical chemistry, and general

college physics

Credit: 4 semester-hours

CHEMISTRY 412. Physical Chemistry, Part II

This course deals with electrical conductance, electrolytic equilibrium, electromotive force, electrolysis, polarization, chemical kinetics, photochemical reactions, atomic structure, molecular structure, and radioactivity.

Prerequisites: General college chemistry, analytical chemistry, and general

college physics

Credit: 4 semester-hours

PHYSICS 304. Introduction to Photography

This is a beginning course in photography consisting of laboratory work and field work supplemented by lectures and demonstrations. Some of the topics covered are: the construction and operation of cameras, common films and papers, fundamental chemistry of photography, development and printing. A student needs at least one camera.

Credit: 4 semester-hours

PHYSICS 402. Advanced Electricity

The most important aims and purposes of the course are as follows: (1) to provide a substantial background of training in the fundamental laws and principles governing the generation and use of electricity; (2) to develop skill in manipulating laboratory and demonstration apparatus; and (3) to offer opportunity for the exercise of originality in devising methods for the interpretation of experimental data.

This course consists of lectures, demonstrations, reference readings, written and oral reports, laboratory experiments with modern electrical instruments, and construction of simple electrical devices. Some of the topics studied are: modern concepts of the electronic structure of matter, electric forces, magnetic fields, potential, resistance, impedance, capacitance, and charactertistics of thermionic vacuum tubes.

Prerequisites: PHYSICS 101 and 102

Credit: 4 semester-hours

PHYSICS 405. Light and Optical Instruments

Topics included for study in the classroom and laboratory are: the propagation of light; emission and absorption of radiant energy; reflection, refraction, polarization; spectrum analysis; photometric measurements; photoelectric cells; measurement of high temperatures; characteristics of illumination, modern illuminants; and industrial and domestic uses of light.

Prerequisites: General college physics and a course in electrical measurements

Credit: 4 semester-hours

PHYSICS 406. Astronomy

The course consists of a study of the fundamental principles of the science of astronomy. Such topics as the following are considered: motions of the earth; time; the moon; law of gravitation; the planets, comets, and meteors; the sun; evolution of the solar system; the constellations; distances and motions of the stars; spectrum analysis; and telescopic observations.

Credit: 4 semester-hours

PHYSICS 407A. Aviation, Part I

This course deals with the historical development of aviation, air traffic rules, air-worthiness regulations, pilot certification, types of aircrafts, aircraft

structures, principles of aerodynamics, lift, drag, stability, motions of an airplane, piloting, motorless flight, and aircraft engines.

Flight experience is made available as a part of this course.

Credit: 2 semester-hours

PHYSICS 407B. Aviation, Part II

This course continues the study of the topics considered in Physics 407A and also develops an understanding of power performance, propellers, engine instruments, and flight instruments.

Flight experience is made available as a part of this course.

Credit: 2 semester-hours

PHYSICS 408. Advanced Aviation

This course consists of the study of navigation; meteorology as applied to flight operations; radio communications; flight and navigational radio aids; instrument flight; jet, turbojet, and rocket flight; and recent advancements in aviation.

Prerequisite: Physics 407

Credit: 4 semester-hours

PHYSICS 409. Introduction to Radio Communication

This course deals with direct and alternating current circuits; construction and operation of detectors; characteristics of audio and radio frequency amplifiers; vacuum tubes; and two-way communication in aviation.

Prerequisite: General college physics

Credit: 4 semester-hours

PHYSICS 410. Physical Principles in Automotive Transportation

This course deals with the following topics: engine theory and design, cooling system, ignition, fuel system, motors and generators, wiring and lighting, storage battery, and transmission.

Prerequisites: General college physics and a course in electrical measurements

Credit: 4 semester-hours

Students who wish to be recommended by the department to teach aviation should complete the following courses:

PHYSICS 407. Aviation

Credit: 4 semester-hours

PHYSICS 408. Advanced Aviation

Credit: 4 semester-hours

PHYSICS 409. Introduction to Radio Communication

Credit: 4 semester-hours

SCIENCE 401D. The Teaching of Aviation in Secondary Schools

Credit: 2 semester-hours

THE DEPARTMENT OF THE SOCIAL STUDIES

The social studies teacher requires a very broad knowledge of the facts of social life, both past and present. He needs not only to know the facts, but to be able to think about them. Even more important, he must know how to impart his knowledge to younger people and to stimulate their thinking and civic interest. The secondary schools of today are rightfully expected to train for a citizenship which is alert, informed, and socially sensitive. The social studies teacher must bear a large responsibility for the accomplishment of this result.

The Social Studies Department offers a wide range of courses in the subjectmatter fields aimed to provide the necessary range of knowledge. Since teachers of all subjects have their share in citizenship training, this department offers for all students, whether social studies majors or not, a course in Civilization and Citizenship which presents a rapid survey of the civilizations of the past, and which examines the nature of social life and the relation thereto of the social studies. For all students there are, likewise, courses in contemporary economic, political, and social problems.

Social studies majors are required to take courses which are at once broad and thorough in those fields which the secondary school teacher chiefly needs. Such are the courses in European history, American history, and those courses in economics, politics, and sociology which contribute so largely to an understanding of present day problems, both American and international.

The aim is that in each of these fields, as the subject matter is studied, there shall also be considered the problems of teaching in that particular field. But in addition to this professionalization of subject-matter, every social studies major is required to take in the senior year a specialized course in the methods of teaching the social studies.

The following courses are required for social studies majors: Social Studies 101, 102, 201, 202, 301, 302, 401, 407, 471, and a two-point elective upon return from student teaching.

Social studies majors are required to make at least sixty observations in the College High School, for the most part in the junior and senior years. In so far as it is possible, these observations should cover the range of high school classes from the seventh to twelfth grades and should be so organized as to follow the development of entire teaching units.

THE FIRST YEAR

During the first year the social studies major, like all other students, takes a course in Civilization and Citizenship to orient him in the field of social studies and to provide him with a background of understanding for all the social studies work of the future.

In addition, he begins his work as a social studies major by an intensive survey of European history.

SOCIAL STUDIES 100A and 100B. Civilization and Citizenship

For a description of these courses, see pages 43 and 44.

Credit: 3 semester-hours each

SOCIAL STUDIES 101. European History: 1492-1815

Europe's evolution since the breakdown of the Middle Ages; the spread of Humanism; the Renaissance and the Reformation; Europe's colonial expansion; the development of parliaments, with emphasis on England's constitutional struggles; the world rivalry between France and England; Russia's role in eighteenth century Europe; the rise of Prussia; and enlightenments of the French Revolution and the Napoleonic era are studied. Emphasis is given to social, economic, and political changes which were caused by the diffusion of learning, science, inventions, and commerce.

Credit: 4 semester-hours

SOCIAL STUDIES 102. European History: 1815-1920

Europe's balance of power in the era of Metternich; the Industrial Revolution; nationalism; democracy; socialism and internationalism; the liberation of oppressed nationalities; the unifications of Italy and Germany; imperialist rivalries; materialism and militarism; the Balkan powder keg, and the origins of World War I are discussed. Emphasis is given to the inter-relations of changing moral values, economic instability, and social upheavals associated with world-wide conflicts.

Credit: 4 semester-hours

THE SECOND YEAR

All students of the second year, social studies majors included, make a broad survey of current social, economic, and political problems. These courses carry to completion the work of the first year in Civilization and Citizenship. Social studies majors continue their sectionalized preparedness with courses in American history.

SOCIAL STUDIES 200A. Contemporary Economic Life For a description of this course, see page 44.

SOCIAL STUDIES 200B. Contemporary Political Life For a description of this course, see page 44.

SOCIAL STUDIES 200C. Contemporary Social Life For a description of this course, see page 44.

Total credit: 6 semester-hours for 200A, B, and C

SOCIAL STUDIES 201. American History to 1860

Emphasis is given to the development of cultural differences among the English colonists, the causes of colonial hostility to the mother country, and the American Revolution. Considerable attention is given to the origin and nature of the United States Constitution and to the founding of the nation.

The expansion of the nation territorially, the progress of the industrialization of the North, the rise of the new West, the new democracy, and the great struggle over slavery bring the story to the Civil War.

Credit: 4 semester-hours

SOCIAL STUDIES 202. American History: 1860 to the Present

The Civil War, the economic growth of the United States following Reconstruction, the difficult political and social problems growing out of this change, the increasing interest of the United States in world affairs, and World War I lead naturally to a consideration of present-day problems.

Credit: 4 semester-hours

THE THIRD YEAR

In this year the student comes into his electives, both in his own field of the social studies and in the fields of his chosen minors. Courses are offered in sociology, political science, economics, history, and field studies. All of these courses are rich with materials for his teaching in the contemporary fields of history, and especially in the field of twelfth grade American history. The courses for students majoring in the social studies are 301 and 302.

SOCIAL STUDIES 301. Economics

This course aims to provide the student with a detailed knowledge of the development and function of American economic institutions, the maladjustments that are apparent, and the changes that are in progress. The topics considered are: the corporation, banks, capital, industrial and agricultural production, problems of consumption, monopoly, foreign exchange, market price, and the distribution of wealth.

Credit: 4 semester-hours

SOCIAL STUDIES 302. Field Studies in Urban Life

This is a field studies course in which the New York Metropolitan Area is used as the laboratory, and the social, economic, and political activities of the people of the area constitute the subject-matter. The course is designed to furnish first-hand experiences complementary to all other social studies courses, to reveal new horizons, and to train the student in field work techniques. Studies are made of levels of living, minority groups, governmental services, economic institutions, and of the historical and geographic background of the region. There are eight field trips. To supplement the trips classroom discussions, lectures, moving pictures, and other multi-sensory aids are used.

Credit: 3 semester-hours

THE FOURTH YEAR

The work of the fourth year serves to bring to a focus the work of the preceding years, as regards both subject-matter and the teaching of it. Social studies majors during the first semester are given a systematic course in the

Methods of Teaching Social Studies. They also take courses in New Jersey State and Local Government and in recent American history.

This preparation leads directly to actual teaching experience when, in the second semester, each major spends twelve weeks in a secondary school teaching the social studies under the careful supervision of a teacher in that school and of members of the College staff.

In addition to the above mentioned required courses each senior is required to take one course in the Social Studies Department upon return from

student teaching.

SOCIAL STUDIES 401. The Teaching of the Social Studies in Secondary Schools

The course aims to present recent tendencies in educational method in teaching the social studies. A program is presented containing the correlation of subject-matter organization in socialized recitation, the teaching of current events, projects in citizenship, and the use of the project-problem as a method of teaching history and civics. A laboratory containing texts and workbooks in the social studies field is available to the students of this course.

Credit: 3 semester-hours

SOCIAL STUDIES 407. New Jersey State and Local Government

A study is made of the State Constitution; New Jersey's place in the Federal system; the rights and duties of citizens; suffrage; political parties; the legislative, the executive, and administrative systems; the courts, the law enforcement and correctional systems; revenues and expenditures; public health, educational, highway, and other services; county and municipal government; and other local political units.

Credit: 2 semester-hours

SOCIAL STUDIES 471. The United States since World War I

This course surveys the major problems, economic, social, political, and international, which have marked our national development since the end of the first World War. It is intended especially for social studies seniors as a preparation for the second year of secondary school American history as provided for in the recently adopted state requirements.

Credit: 2 semester-hours

ELECTIVES

The following are intended as elective courses for juniors and seniors; some of them may, under certain circumstances, be taken by sophomores with the consent of the Head of the Department.

Ancient and Medieval History

SOCIAL STUDIES 421. Oriental Civilization

This course presents the important contributions to civilization and social progress made in antiquity in three great centers of the Near East—Egypt, Mesopotamia, and Crete. Discussion of the Oriental culture pattern is am-

plified by visual aids. Emphasis is laid on the results of modern archeological research in completing the picture of early life in the Near East.

Credit: 2 semester-hours

SOCIAL STUDIES 422. Greek Civilization

The aim of this course is to present the development of Greek Civilization from the earliest period to the beginning of the Christian Era. The units of emphasis are: The Migrations; Life in the Dark Ages; The Fifth Century Climax; Alexander's Era; and the civilization of the great Hellenistic centers, Alexandria and Pergamum. Consideration is also given to the Greek experiment in Federal government, the Achaean League.

Credit: 2 semester-hours

SOCIAL STUDIES 423. Roman Civilization

This course traces the social changes in Rome from the earliest times to the end of the Western Roman Empire. Attention is directed to the earliest features of Roman civilization and to the changes—political, social, and economic—resulting from Etruscan, Carthaginian, and Greek influences. The rise and fall of the empire are discussed with relation to their importance in medieval civilization.

Credit: 2 semester-hours

SOCIAL STUDIES 424. Medieval Civilization

This course aims to trace the history and civilization of the different races which wandered about and finally settled in Europe during the medieval period. The course presents a careful account of the importance of the Catholic Church in medieval civilization; the beginnings of modern nations; the effects of Arabic learning and scholarship; and social awakening due to the Crusades and the capture of Constantinople by the Turks.

Credit: 2 semester-hours

SOCIAL STUDIES 426. Medieval History to 1498

In the first part a study is made of the factors contributing to the political breakdown of the imperial principle, such as the growth of Christianity, barbarization of the West, and the expansion of Islam. Increasing centralization in France under the Capetians is contrasted with the rapid decentralization of the Holy Roman Empire. The growth of Feudalism and the Crusades is emphasized. The second part is devoted to the developments in Western Europe after 1200, stressing political movements, medieval commerce, guilds, growth of towns, and cultural changes.

Credit: 4 semester-hours

SOCIAL STUDIES 427. Ancient History to 378 A.D.

The first part of this course covers the Oriental period and the Greek through the Periclean Age. Detailed study is given the Egyptian, Babylonian, and Hittite cultures, and Athenian democracy and imperialism. The second part covers the Hellenistic period from the rise of Philip of Macedon, stressing

attempts at federalism. It also covers all periods of Roman history, placing special emphasis on republican forms and imperial experiments in governmental organization and control.

Credit: 4 semester-hours

SOCIAL STUDIES 436. Modern Men of Ancient Times

This course is designed to present biographical sketches of some of the great leaders of past ages. Special attention is given to their influence on the thought of their own times and their contribution to the culture of the present day. The course is specially recommended to students who wish to know these leaders as real persons and not as lay figures in ancient history.

Credit: 2 semester-hours

SOCIAL STUDIES 473. The Arts in Western Civilization

This course is designed to show how the social, economic, political, and religious movements in Western Civilization influence the aesthetic expression of Europe from the Golden Age of Greece to the Rise of the Industrial Revolution. Greek, Roman, Byzantine, Gothic Baroque, and Rococo art, architecture, and music are discussed and illustrated.

Credit: 2 semester-hours

Modern European History

SOCIAL STUDIES 414. Modern England

This course deals both with the historical periods as such and with the influences of the political, economic, and social forces in the English literature of the century. The Napoleonic era, political reform, factory reform, the humanitarian movement, the Irish question, the ministries of Gladstone and Disraeli, and the interpretation of politics and literature are considered.

Credit: 2 semester-hours

SOCIAL STUDIES 420. European Outlook

This course is designed to provide the background for understanding Europe today. The reality of ideological struggles between free and totalitarian countries is emphasized as a main source of present-day conflict. The Russian Revolution of 1917, the rise and collapse of Facism and Nazism, the Spanish Civil War, Munich, World War II, and world political developments from Yalta to our day are stressed. It is attempted to show how adversely an unstable Europe must affect the United States and the world, and to what extent a totalitarian Europe would threaten the balance of peace. Diplomatic, ideological, and military strategy, and the gravity of the atomic menace are pointed out.

Credit: 4 semester-hours

SOCIAL STUDIES 441. Economic History of Europe

The study of Europe from an economic point of view is particularly important in the light of present European problems and their relation to world-wide conditions. This course is a survey of the economic life and development of

Europe from the emergence of the ancient civilizations to the beginning of the modern economic world. It gives special attention to economic causes that underlie the dislocation and perplexities of the last century.

Credit: 2 semester-hours

SOCIAL STUDIES 448. The British Dominions

This course deals with the role Canada, Australia, New Zealand, and South Africa are playing in present world affairs. Special emphasis is given to Canada and its dual position as an American state and a part of the British Empire.

Credit: 2 semester-hours

SOCIAL STUDIES 457. Development of Russia

Factors which have shaped the evolution of the Russian people, such as Byzantinism and the Greek Orthodox faith, the Synod, Tartar state organization, the Mir, Westernization from Peter to Lenin, Slavophilism, and dialectic materialism, are emphasized. An account is presented of Soviet internal organization, sovkhoz, kolkhoz, and the Five-Year plans. In addition to the historical background, Russia's great writers are discussed in the light of social and political developments.

Credit: 2 semester-hours

SOCIAL STUDIES 458. Russia As A World Power

An analysis of Russia's relations with China, Iran, Turkey, the European continent, England, and the United States is presented. Marxist world policy, as interpreted by Kautsky, Plekhanov, Jaures, Bukharin, Trotsky, Lenin, and Stalin, is described. The changing views of the Second and Third Internationals, and the organization and methods of the Comintern are discussed. A chronological account of Soviet diplomacy, since Chicherin, is offered.

Credit: 2 semester-hours

United States History

SOCIAL STUDIES 413. Economic History of the United States

The great trends and movements in agriculture, finance, commerce, manufacturing, transportation, and industrial relations are traced from their beginnings in the colonial period to their contemporary expressions in the present crisis. This course supplements, but it does not duplicate, courses in the political history of the United States or courses in economic principles and problems.

Credit: 2 semester-hours

SOCIAL STUDIES 419. American Political Biography

This is the study of the life and influence of the leading figures in American political and social history. It is the aim here to show the relation of each of these characters to the times in which he lived and to point out how he influenced the trend of American life. The study includes such leaders as Wash-

ington, Jefferson, Hamilton, Webster, Lincoln, Cleveland, T. Roosevelt, and Wilson.

Credit: 2 semester-hours

SOCIAL STUDIES 438. The Literature of American History

A brief description of the material available for the study of American history is followed by class practice in finding and using the primary sources of some of the facts commonly taught in schools. Representative American historians, their training for historical study, the sources they used, the degree of accuracy with which they used their sources, their point of view, their plan of organization, and their present importance are discussed.

Credit: 2 semester-hours

SOCIAL STUDIES 447. Diplomatic History of the United States

The purpose of this course is to show how we have become gradually conscious of our world interests and responsibilities, and the important role we have come to play in international politics. The growing concept of world democracy, as opposed to commercial and military imperialism, is stressed.

Credit: 2 semester-hours

SOCIAL STUDIES 474. America in Transition

This course surveys rapidly the results of the Civil War and then emphasizes the major trends, economic and social, which have made modern America. It is intended as a more advanced study than that which is made in the undergraduate course. The period covered is from 1867 to around 1914.

Credit: 2 semester-hours

SOCIAL STUDIES 475. The History of American Thought

This course considers the influential thinking in America from the May-flower Compact to the Marshall Plan to see how certain ideas or trends of thought have grown out of situations and have in turn helped to mould the course of our history. The student should gain an appreciation for the American contribution to world culture, and an examination is made of outworn stereotypes which exist today. The writings and discourses of important American thinkers are considered including Mather, Paine, Jefferson, Emerson, Thoreau, and Veblen.

Credit: 2 semester-hours

SOCIAL STUDIES 480. Social History of the United States

This course presents a study of the social and cultural aspects of American history. As such, it supplements but does not take the place of economic and political history. The course considers population movements and growth, rural and urban social problems, status of women, family life, utopian ventures, mass media of communication, amusements and recreation, and human rights.

Credit: 2 semester-hours

The Americas

SOCIAL STUDIES 415. Latin-American Relations of the United States

This course aims to provide the information necessary to a clear understanding and accurate appreciation of the political, economic, and social relations that have developed between us and our Latin-American neighbors. To achieve this end, it considers the geographical conditions, the historical events, and the civic circumstances that have motivated and directed the growth of these relations and that will determine our Latin-American policy in the future.

Credit: 2 semester-hours

SOCIAL STUDIES 417. American Archaeology

This course shows that the New World of the early discoverers was in reality far from new. The course discusses the prehistoric pueblo dwellers and early mound builders. The truly remarkable civilizations of the Mayas and the Incas are examined and compared with that of the Aztecs. North American tribes of Indians are also studied in order to evaluate their significant cultures.

Credit: 2 semester-hours

SOCIAL STUDIES 435A. The Americas: A Contemporary Political, Economic, and Cultural Survey, Part I

This course deals specifically with the relations of the United States and the Caribbean countries. Attention is given to the dependencies of the United States in this region as well as to the independent republics. Twentieth century political, economic, and cultural developments of this region are stressed in light of the inter-American system.

Credit: 2 semester-hours

SOCIAL STUDIES 435B. The Americas: A Contemporary Political, Economic, and Cultural Survey, Part II

This course deals specifically with the twentieth century political, economic, and cultural life of the South American nations. The role which the South American states play in world affairs is stressed. Attention is given to post-World War II developments and adjustments in South America.

Credit: 2 semester-hours

SOCIAL STUDIES 440A and 440B. The Development of Central and South America: as Colonies and Nations

The first part of this course surveys the period of exploration and settlement in the colonies of South and Central America. It traces the revolutionary movements that led to their independence and national development as Latin-American countries. The second part studies the experiences of the various Latin-American nations under different forms of government, ranging from absolute dictatorships to "popular front" administrations. It explains the economic and social standards of living accepted by the South and Central American people,

and recognizes the contributions they have made to the growth of Pan-Americanism during the last century.

Credit: 2 semester-hours each

SOCIAL STUDIES 453A. The Development of Mexico and the Caribbean States

It is intended to show in this course the historical development of Mexico and the Caribbean nations in terms of their political, cultural, social, and economic progress in order to develop understandings and appreciations for their cultures and present-day problems. The relationships of their problems to those of the other American nations are stressed and placed in proper perspective.

Credit: 2 semester-hours

SOCIAL STUDIES 453B. The Development of Canada

This course is devoted to the study of the historical background, geographical environment, governmental organization, economic behavior, and social conditions of the northern neighbor of the United States. Its professional objective is to provide the understanding and appreciation necessary to the student and teacher who may follow and interpret the growth, internal and external, of the Dominion of Canada and of its relation to the United States as well as to the British Commonwealth of Nations.

Credit: 2 semester-hours

International Affairs

SOCIAL STUDIES 412. International Government

The attempts of the international community of states to express itself in a formal world organization are the subject of this course. The agencies which have been established to deal with international legislative, executive, administrative, and judicial problems are studied. Specifically, among the topics discussed are the national State system, sovereignty, equality, intervention, international law, diplomatic services and procedures, international conferences and unions, sanctions, treaties, arbitration, international courts of justice, armaments and war, League of Nations, International Labor Organization, regional agreements, the United Nations.

Credit: 3 semester-hours

SOCIAL STUDIES 434. Contemporary World Affairs

This course is devoted to a survey of the leading diplomatic, economic, political, and military issues before the world today. The backgrounds from which these international affairs have evolved are reviewed. A study is made of the significance of these issues in the development of a program for international cooperation and peaceful living among the peoples of the world.

Credit: 2 semester-hours

SOCIAL STUDIES 442. The Far East

A study is made of the economic, social, and cultural situation of the Far East, with particular emphasis on the historical background of China and Japan, and on our relations with the Philippines. Oriental folkways, religion, education,

population shifts, and strategic questions are discussed. This course provides an approach to the problems the United States must face in the Far East.

Credit: 2 semester-hours

SOCIAL STUDIES 451. The Middle East

This course is a survey of Indian and Moslem civilizations. It shows that economic and political changes alone do not suffice to adjust the peoples of the Middle East to twentieth century civilization, and that many cultural traditions must vanish while some forgotten features of the past are to be revived. Postwar planning for the region from the Near East through Persia, India, Burma, Thailand, and Malaya to the Netherland East Indies is discussed.

Credit: 2 semester-hours

Economics

SOCIAL STUDIES 446. Current Problems in Economics and Government

This course is designed to analyze the relationship of economics to government. The causes and results of governmental activity are discussed in the light of their economic significance and their bearing on public welfare.

Credit: 2 semester-hours

SOCIAL STUDIES 450. Modern Economic Problems

After a brief recapitulation of the material contained in SOCIAL STUDIES 200A, Contemporary Economic Life, the class proceeds to make a detailed study of our broader economic problems and of the public policy relating to them. (Students who have had credit for SOCIAL STUDIES 450B should not enroll in this course.)

Credit: 2 semester-hours

SOCIAL STUDIES 454. Post-War Economic Reconstruction

The purpose of this course is to provide information necessary to appreciate the impact of reconstruction following the war upon existing economic institutions. Emphasis is placed upon Congressional plans for reconversion, the postwar public debt and related fiscal policies; the political economy of regional economic regulations, cartels, and foreign investments.

Credit: 2 semester-hours

SOCIAL STUDIES 456. International Economic Relations

The purpose of this course is to study the significance of international trade and exchange to the economic life of our nation and the world economy. An analysis of the contrasting economic philosophies relating to international economic organization is made. Special emphasis is given to those policies which tend to promote freer trade, including the classical doctrine of comparative costs, the Reciprocal Trade Agreements Act, and the International Bank and Currency Stabilization Fund.

Credit: 2 semester-hours

Sociology

SOCIAL STUDIES 428. Racial Contributions to American Life

This course deals with the basic problems of quantity, quality, and distribution of population and emphasizes the adjustments and maladjustments which result from the interrelations of Negroes, Asiatics, and various types of Europeans in the United States.

Credit: 2 semester-hours

SOCIAL STUDIES 429. Present-Day Social Problems

Beginning with a survey of levels of living in the United States and their relation to the distribution of wealth and income, this course proceeds with a study of poverty and crime, their sources, treatment, and prevention. Among the topics discussed are: housing, wages, unemployment, physical illness, accidents, old age, physical and mental defectiveness, the nature and extent of crime, police and prison systems, the criminal courts, and methods of punishment and reformation.

Credit: 2 semester-hours

SOCIAL STUDIES 439. The Family and Its Problems

This course gives a history of the family, our American family patterns, the effects of social change, marital patterns of interaction, social roles, sources of conflicts and frustration, divorce and desertion, special problems in family life, economics of children and the home, social legislation pertaining to family problems, marital adjustments, personality change after marriage, parent-child relationships, and personality reorientation.

Credit: 2 semester-hours

SOCIAL STUDIES 443. Youth and the Community

This course is a sociological study of youth in its many relations to the community. Special attention is given to problems which arise in the relationship of youth and the community; e.g., juvenile delinquency, conditions contributing to maladjustment, poorly adjusted children, and educational and social agencies active in solving youth behavior. Through the study of concrete cases, social treatment and community research are demonstrated.

Credit: 2 semester-hours

SOCIAL STUDIES 444. The Social Bases of Human Relations

This course emphasizes the social bases of human nature and personality. Primary and secondary groups, folkways, mores, and institutions are considered. Special consideration is given to ecological and community differentials in reference to poverty, unemployment, criminality, incidence of disease, and mental derangement. Personal disorganization is studied as a process, and social forces leading to community maladjusment and social breakdown are reviewed.

Credit: 2 semester-hours

SOCIAL STUDIES 455. Social Legislation

This course analyzes the social, economic, and political adjustments which have come about in our society due to technological progress. The content covers such subjects as public policy relative to immigration; the problems of national income and its distribution; labor legislation; public policy to aid and protect the consumer; and an analysis of competing philosophies pertaining to industrial and social progress.

Credit: 2 semester-hours

SOCIAL STUDIES 476. Personality Development and Group Relations

A study is made of personality growth through social contacts, the environmental factors found in the home and family, neighborhood, play, and school groups. Methods of measuring the place of the individual in the group, analysis of the group process, ways of bringing about better life adjustment, and integrating experiences are the subject matter of the course. Concrete cases of maladjustment to society and disintegrated personality are studied. Agencies in the community which serve youth are visited, and leadership in community group activities is recognized as part of the course requirements.

Credit: 2 semester-hours

SOCIAL STUDIES 477. Rural Sociology

During this course the student comes face to face with rural life in northern New Jersey. Social processes and problems are considered. Opportunities are provided for students to attend Grange meetings, county fairs, rural dances and parties, and to live for a day or two with a farm family.

Credit: 2 semester-hours

SOCIAL STUDIES 479. Education and Intercultural Relationships

Within our nation as within the world, along with common needs and interests, there exist differences between groups and individuals which act as barriers to satisfying human relationships. This course is devoted to a consideration of these barriers and of common interests and needs which exist in spite of such barriers. We study not only the existence of such conditions but also the attitudes, principles, and techniques which may make for better human relationships.

Credit: 2 semester-hours

Political Science

SOCIAL STUDIES 402A and 402B. American and Comparative Government

The basic facts and principles necessary for the teaching of civics, history, and the political aspects of Problems of American Democracy are studied. The first part is devoted to American national government, including the obligations and rights of citizens, the suffrage, political parties, the changing nature of the Federal system, and the executive, administrative, legislative, and judicial sys-

tems. The second part deals with similar political phenomena in England, France, Germany, Italy, and Russia.

Credit: 2 semester-hours each

SOCIAL STUDIES 433. American Political Thought

This course deals with contemporary trends and theories as they have emerged from social and economic conditions and as they are founded upon the bases laid down by such men as Hamilton, Madison, Washington, Jefferson, Marshall, Calhoun, Webster, Lincoln, and Wilson.

Credit: 2 semester-hours

SOCIAL STUDIES 437. The Political Party System in the United States

Among the topics discussed are: party organization, the political boss, the political machine, party finances, the process of voting, election laws, primaries, conventions, platforms, presidential elections, majority rule, the development of the party system, sectional politics, the farm vote, the labor vote, and the future of party government in the United States.

Credit: 2 semester-hours

Philosophy

SOCIAL STUDIES 404. The Philosophy of History

It is the purpose of this course to investigate the relation of history to the other social studies and also the major attempts to find the meaning of history. A brief survey is made of the leading philosophies of history.

Credit: 2 semester-hours

SOCIAL STUDIES 470. History and Principles of Philosophy

This course presents a study of the history of philosophy and of the important principles contributed by outstanding philosophers from Thales to Gentile. Much of the discussion is centered on three types of philosophic thought: naturalism, idealism, and pragmatism. Among the philosophers considered are: Plato, Aristotle, Bacon, Spencer, Rousseau, Hegel, James, Dewey, and Gentile.

Credit: 2 semester-hours

SOCIAL STUDIES 478. Theories of Social Justice from Antiquity to Our Time

This course is designed to show how specific ideas of social justice resulted from specific historical conditions and events. A comparison of social upheavals among the ancient Hebrews, Greeks, and Romans; the early Christians; the peasants in the Middle Ages; the religious rebels of the early Renaissance; and the revolutionaries of the modern age is to furnish background material for an understanding of present social thought. Lectures and discussions cover the social prophets of the Hebrews; Lycurgus; Cleomenes; Plato; Gracchus; Spar-

tacus; the Essenes, the Waldensians, the Albigensians, and the Hussites; Wycliffe; John Ball; and on selected social thinkers of the last few centuries, such as Hobbes, Locke, Hume, Rousseau, the Utopians, the Socialists, and the Anarchists.

Credit: 2 semester-hours

Educational Techniques

SOCIAL STUDIES 472. Modern Social Studies Instruction and Supervision

This course is designed primarily to assist teachers and supervisors to obtain a comprehensive view of recent curriculum trends, current subject-matter tendencies, and newer practices in secondary school social studies. Topics discussed include: materials, methods, and techniques; use of audio-visual aids; courses of study and experimental programs; professional literature; and problems of the critic teacher and the supervisor.

Credit: 2 semester-hours

FIELD STUDIES IN AMERICAN LIFE

SOCIAL STUDIES 459. New Jersey and the Metropolitan Community

This is a sequel to SOCIAL STUDIES 302 and consists of an entirely different series of field studies. There are eight all-day field trips and seven two-hour class periods. The course is given on Saturdays, during both semesters when possible, and is open to all regular and part-time students as an elective. The field studies in the course cover comprehensively the geography of New Jersey and the lower Hudson valley with emphasis on the conservation of natural resources. Attention is also given to the cultural pattern of the region.

Credit: 3 semester-hours

SOCIAL STUDIES 460. Central Eastern Region

This fifteen day tour of Pennsylvania, Maryland, Virginia, West Virginia, North Carolina, and Tennessee covers the major points of historic interest associated with the Colonial Period, the American Revolution, and the Civil War, and the geographic features of the coastal plain, the Piedmont, the Great Valley, and the Appalachian Mountains in these states. Travel is by modern chartered motor coach, and overnight stops are made at first-class hotels. Among the places visited are: Valley Forge, Philadelphia, Baltimore, Annapolis, Washington, Arlington, Alexandria, Mt. Vernon, Fredericksburg, Richmond, Washington's birthplace at Wakefield, Lee's plantation at Stratford, Yorktown, Williamsburg, Jamestown, Raleigh, Chattanooga, Asheville, Great Smoky Mountains Norris Dam, Jefferson's Monticello at Charlottesville, Natural Bridge, Skyline Drive in the Shenandoah National Park, Luray Caverns, Winchester, Harper's Ferry, Frederick, Gettysburg, and the Pennsylvania Dutch area around Lancaster and Ephrata.

SOCIAL STUDIES 461. New England and French Canada

This field study course gives an opportunity to study by direct observation the historical and geographical features of New England and the Province of Quebec. The trip, occupying the twelve days immediately following the summer session, is made in a modern chartered motor coach with overnight stops at first-class hotels. The route covers the lower Connecticut valley, including Hartford, Springfield, Northampton, and Deerfield; the Rhode Island cities of Providence and Newport; historic Massachusetts towns, such as Plymouth, Boston, Lexington, Concord, Salem, and Marblehead; the coast of New Hampshire and southern Maine; the White Mountains in the Mt. Washington and Franconia Notch area; the Canadian Province of Quebec, including the ancient French city of Quebec, Montmorency Falls, Ste. Anne de Beaupre, Montreal; the western shores of Lake Champlain, Lake George, and the Hudson River. It is an indispensable background for an understanding of Colonial and Revolutionary life and history in this region.

Credit: 3 semester-hours

SOCIAL STUDIES 462. Continental United States

This field study course consists of sixty-two days of directed travel, including all of July and August, and provides an opportunity for gaining an integrated view of our country as a whole. The trip is made in a modern chartered motor coach with overnight stops at first-class hotels. The route covers about 12,500 miles and visits 26 states and 6 National Parks. Among the major points of interest are Gettysburg, Natural Bridge, Blue Ridge and blue grass region, Mammoth Cave, Lincoln shrines in Kentucky and Illinois, Dodge City, Royal Gorge, Pikes Peak, Denver, Rocky Mountain National Park, Taos and other Indian Reservations, Santa Fe, Petrified Forest, Painted Desert, Grand Canyon, Bryce and Zion National Parks, Hoover Dam, Los Angeles, Hollywood, San Diego, San Juan Capistrano and other Missions; Tia Juana, Santa Barbara, Sequoia and Yosemite National Parks, Monterey, San Francisco, Sacramento, Lake Tahoe, Reno, Donner Pass, mammoth redwood groves, Crater Lake, Columbia River Valley, Portland, Seattle, Mt. Rainier, Grand Coulee Dam, Spokane, Butte, Yellowstone National Park, Salt Lake City, pioneer trails of Wyoming, Black Hills, Chicago, Detroit, Toronto, and Niagara Falls. All important geographic and historical features are studied under the instruction of members of the college faculty and local specialists. Write for detailed descriptive folder.

Credit: 10 semester-hours

SOCIAL STUDIES 463. The Lower South

This is a fifteen day field study course, covering the gulf coasts of Louisiana, Mississippi, and Alabama, and both coasts of Florida. Among the topics observed and studied are the Acadian and Creole culture in and around New Orleans; the industrial, historical, and recreational features of Biloxi, Mobile, and Tallahassee; the tobacco, citrus, and sponge-fishing industries in the neighborhood of Tampa, St. Petersburg, Lake Wales, Sarasota, and Fort Myers; the plant and animal life of the Everglades along the Tamiami Trail; the millionaire

playgrounds of Miami and Palm Beach; and the historical shrines of America's oldest city, St. Augustine. It is usually offered during the Christmas holidays.

Credit: 3 semester-hours

INSTITUTES AND WORKSHOPS

SOCIAL STUDIES 495A and 495B. American History Workshop: The New Jersey Two-Year Course

This course is designed to assist principals, supervisors, and teachers to organize, administer, and teach the proposed new course in American history.

Credit: 2 semester-hours each

SOCIAL STUDIES 499. China Workshop

This course is given in twelve days. Twenty-four hours of lectures and class discussions are devoted to the study of Chinese history and contemporary Chinese life under the direction of Chinese scholars. Twenty-four hours of directed study in the library are devoted to the preparation of teaching units and background materials on China for use in our schools.

Credit: 3 semester-hours

SOCIAL STUDIES 496A. The Chinese Society

This course is an intensive study of the formation of the Chinese people, their collective life, and the interaction of natural and human forces with the resultant social organizations from early times to the present. Particular emphasis is placed upon the development of social institutions, including the family, labor guilds, educational systems, and religious institutions, as well as their transformation and modernization under the impact of different forces from the West. There are twenty-four hours of lectures in the morning, and round-table discussion and library work in the afternoon.

Prerequisite: Social Studies 499, China Workshop

Credit: 3 semester-hours

SOCIAL STUDIES 496B. China: The Evolution of a Nation

This course is an intensive study of the Chinese civilization, the forces underlying the development of the national character of the Chinese people, their contacts and conflicts with other peoples and cultures from historical times to the present. Chinese folklore, folkways, biographies, and contributions to world civilization are considered. Because of its voluminous material, this course does not attempt to cover the whole span of Chinese history, but it is an integrated presentation of the maturing of the Chinese people as a nation. There are twenty-four hours of lectures in the morning, and round-table discussion and library work in the afternoon.

Prerequisite: Social Studies 499, China Workshop

Credit: 3 semester-hours

SOCIAL STUDIES 497. Chinese Philosophy

This course covers the lives and teachings of some of the major philosophers

of China. There are twenty-four hours of lectures in the morning, and round-table discussion and library work in the afternoon.

Prerequisite: Social Studies 499, China Workshop, or an equivalent course in philosophy

Credit: 3 semester-hours

SOCIAL STUDIES 498. China and The Far East

This course is given in twelve days, two hours each morning being devoted to the discussion of contemporary Chinese problems and China's relations to her neighbors in the Far East: Japan, India, Korea, the Philippines, and Russia-In-Asia.

Credit: 3 semester-hours

ART 414. History of Chinese Art

For a description of this course, see page 48.

Credit: 3 semester-hours

ENGLISH 459. A Survey of Great Chinese Literature For a description of this course, see page 73.

THE DEPARTMENT OF GEOGRAPHY

The world consists of regions. Each world region has its own personality, its own set of significant conditions. A kirghiz nomad, an Illinois farmer, a Norwegian fisherman, an Amazonian rubber gatherer, a Canadian lumberjack, and a Chinese junk man—each lives in a world whose conditions and outlook are unlike the others. To interpret those earth qualities is the distinctive function of modern geography. Geography in its dual role as a natural and social science thus becomes a task of interpretation. It has a field cultivated but little by the other natural and social sciences. It has a point of view which is needed in any attempt to analyze modern civilization.

Nations today must be considered as a part of one great family and can no longer be treated as totally separate units—whatever happens in one corner of the earth is now of interest to the remainder of the world. It is not enough to know that tea is produced in China and the physical and economic reasons why; it is also necessary to realize that the status of the industry there may be reflected in the price of hogs in the corn belt of the United States.

Tariffs and sectionalism are closely related to geographic and industrial conditions—New England wants a tariff on clothes and shoes to protect her textile mills and shoe factories, the wool growers of Ohio want a tariff on raw wool, Pennsylvania wants a tariff on coal, the beet sugar interests of the United States demand a tariff on sugar, and western fruit growers call for a tariff on their products.

The science of geography provides an explanation of many things, a basis of understanding valuable in every walk of life as well as a vital part of training for citizenship, and an opportunity for teaching the good relations of nations with each other. A knowledge of the geography of the world should give people respect, sympathy, and understanding for each other. Almost every day people are called upon to meet and settle some problem that requires geographic knowledge. The agriculturist, the merchant, the mariner, the aviator, the manufacturer, the politician, the lawyer, the doctor, all should be well-grounded in this field. Aside from its application to the immediate problems of business and political life, geography has cultural value by making man at home with human relations and with his relations to nature by apprehending its beauty and grandeur.

Climate and weather enter deeply into the whole fabric of human life. Climate pursues us, lives with us, and conditions our activities, the vigor of our bodies, and the tone of our spirits, by day and by night, season by season, and year by year. The distribution of temperature and rainfall affects every human being from his birth to his death, controlling activity in agriculture, manufacturing, communication, transportation; it also governs the food, raiment, and home of man.

Courses in the Department of Geography are arranged not only to prepare teachers of geography for the junior and senior high schools, but also to: (1) contribute to the preparation of science and other teachers; (2) serve as fun-

damental courses for the student of history, economics, and related subjects; (3) afford, as a part of general education, a broad cultural background for an understanding of world affairs; and (4) furnish a basis for enjoyment of recreation and travel.

For geographical study, the State Teachers College at Montclair has an ideal location. Almost every kind of rock and mineral-type known to man is to be found here. There is an astounding diversity of geological structure and physiographic formation. The story of glaciation is written across the whole area of Northern New Jersey. Contrasted types of stream, valley, and topography are at one's command. Only a few miles to the east lies the coast line with its wealth of shore line features, while to the west appear the folded ranges of the Appalachians and the Delaware Water Gap, one of the notable works of nature. New York City, with its millions of people from all parts of the world, its splendid harbor, its large and well-equipped libraries and museums, its weather bureau, and its enormous wealth of industry and lines of communication, is less than an hour's ride away.

SCIENCE 100C, *The Earth Sciences*, is required of all students. GEOGRAPHY 201, 202, 301, and 302 constitute a minor in geography.

THE FIRST YEAR

The work of the first year in geography aims through a study of geographic principles to give the student an accurate conception of the subject as a field of scientific thought; to give an appreciation of the importance of geography in education; to serve as a unit of general culture; and to establish fundamental concepts of the subject that will be of value for further study of geography.

SCIENCE 100C. The Earth Sciences

For a description of this course, see page 46.

Credit: 2 semester-hours

THE SECOND YEAR

The courses for the sophomore year are arranged to give the students a thorough grounding in the physical background of the subject, and a development of geographic thinking that will aid them in clear reasoning and expression in working out the relationships of man to his natural environment. Also detailed regional studies of continental areas are introduced for the first time and more thought is given to the professionalization of the subject-matter.

GEOGRAPHY 201. Climatology

A consideration is given to the meteorological elements, such as temperatures, pressures, winds, clouds, humidity, precipitation, and atmospheric dust which go to make up climates. In the treatment of the climate, the aim is to determine: (1) its characteristics, (2) its regional distribution, and (3) its significance to life activities. Attention is given to the operation and values of the Federal Weather Bureau. Throughout the course emphasis is placed upon the relationships of climate to human affairs.

GEOGRAPHY 202. Geography of the Western Hemisphere

This course constitutes a detailed regional study of the continents of North America and South America. North America is treated first. It serves as an introduction to and a desirable foundation for the study of other continental areas. Emphasis is placed upon the human activities in relation to their natural environment, the commercial relations of the two continents with each other and with the world as a whole, and the possibility of further human utilization.

Credit: 4 semester-hours

THE THIRD AND FOURTH YEARS

In the work for the junior and senior years there is continued emphasis apon the subject-matter in regional and economic geography necessary for teaching geography in the secondary schools. Also more attention is given to the professionalization of the subject-matter than in either of the previous years; that is, the techniques of presenting material, the use of geographical tools, and the problems of testing are dealt with in the treatment of the subject-matter in hand.

GEOGRAPHY 301. Geography of Eurasia

This course includes a consideration of the relief, climate, coastline, and marginal seas of Eurasia as a whole, to be followed by detailed regional studies of Europe and Asia respectively. Emphasis is given to the economic, social, and political activities of the people of Europe and Asia in their relation to the natural environment.

Credit: 4 semester-hours

GEOGRAPHY 302. Economic Geography

A comprehensive study is made of the influence of the natural environment upon the production, trade, and utilization of the more important agricultural, mineral, forest, factory, and sea commodities; of the development of continental and ocean trade routes and trade regions of the world. The course affords preparation for the teaching of world geography and economic geography in secondary schools.

Credit: 4 semester-hours

OTHER COURSES IN GEOGRAPHY

GEOGRAPHY 405A and 405B. Climates of the World

This course embraces an explanatory comparison of the major types of climatic environment found in different parts of the world, and the factors controlling their distribution. Special attention is given to graphing, mapping, and the interpretation of climatic data.

GEOGRAPHY 406. Geology

This course deals with the earth and its geographic, stratigraphic, and structural development throughout geologic time; the record of the evolution of life as interpreted through a study of rocks and fossils.

Credit: 2 semester-hours

GEOGRAPHY 408A and 408B. Political Geography

This course deals with the geographic conditions influencing the significant changes in the political divisions of the world. Emphasis is placed on geographic factors influencing racial, religious, commercial, and political adjustment between nations.

Credit: 2 semester-hours each

GEOGRAPHY 409. Economic Geography of the British Isles

A comprehensive treatment of the resources of the British Isles is given and the influence of the natural environment upon the utilization of those resources in the economic, social, and political development of the British Empire is evaluated.

Credit: 2 semester-hours

GEOGRAPHY 410. Economic Geography of Caribbean America

This is a study and interpretation of the major and important minor economic areas of Caribbean America in relation to the natural environment. Attention is also given to the historical factors which have played a part in the economic and social life of the people.

Credit: 2 semester-hours

GEOGRAPHY 411. Geographic Influences in American History

A study is made of the geographic factors influencing the development of social, economic, and political life in America.

Credit: 2 semester-hours

GEOGRAPHY 412. Geography of Africa, Australia, and New Zealand

A study is made of the activities of the people of Africa, Australia, and New Zealand in relation to their natural environment. Emphasis is placed upon the location, relief, and climate of the continents. Attention is given to the influence of geographic factors upon the post-war adjustments and the possible future relations of these countries with the United States.

Credit: 2 semester-hours

GEOGRAPHY 413. Economic Geography of South America

This course constitutes a study of the influence of the natural environment upon production and utilization of resources in the economic, social, and political development of the various nations of South America.

GEOGRAPHY 414A and 414B. Advanced Economic Geography

This course is a study of the influence of the physical environment upon the production of, the trade in, and the utilization of the important agricultural, forest, mineral, and sea products, and the manufactured commodities of the world.

Credit: 2 semester-hours each

GEOGRAPHY 416. Conservation of Natural Resources

This course includes a study of the natural resources of the United States, their past and present exploitation, their influence on the development of the nation, their conservation and future use.

Credit: 2 semester-hours

GEOGRAPHY 417. Meteorology with Application to Aviation

This course constitutes a study of the atmosphere, the sources of atmospheric heat, temperature variations and their relation to weather phenomena. Emphasis is placed on the nature of the large scale wind systems, air masses and fronts and upon rainfall distribution. Special phenomena such as thunderstorms, fog, and ice accretion which affect the operation of aircraft are treated, and the uses of meteorological instruments are explained.

Credit: 2 semester-hours

GEOGRAPHY 418. Regional Geography of North America

This course constitutes a detailed regional treatment of the continent of North America. Emphasis is placed upon the human activities of the various regions in relation to their natural environment and the relations of the regions to each other. Attention is given to the techniques of presenting the material and the use of geographic tools in the treatment of the subject-matter.

THE DEPARTMENT OF HEALTH, PHYSICAL EDUCATION, AND RECREATION

The Department serves the College by offering an activity program that is open to all students on an extra-curricular basis, a required activity program for freshmen and sophomores, and a curriculum that will lead to certification for teaching in these fields.

The Required Program

HEALTH EDUCATION 100, Healthful Living, is required of all students.

Physical Education—Two hours a week of gymnasium work for four semesters are required of each freshman and sophomore student. The Department aims to provide a well-balanced program of vigorous power building activities which will prove pleasurable and satisfying and offer recreational interests for both college and post-college life.

Each student is given a yearly health examination by a physician who determines the fitness of the student to participate in the general program.

Regulation costume is required of all students.

The Minor Programs

Opportunities are offered by the Department for preparation in three fields of instruction: Physical Education, Health Education, and Recreation. A sufficient number of courses are offered in various fields to meet State requirements for a minor in Physical Education, for certification in Health Education, for specialization in Recreation, and certification as teachers of Driver Education in the high schools of New Jersey.

Students interested in these fields should arrange for an appointment with a division head of the Department before undertaking the program.

It is suggested that the student obtain outside experience by working either in schools, playgrounds, camp, or recreation centers.

HEALTH EDUCATION

With HEALTH EDUCATION 100 as a prerequisite the following courses are offered for those who may desire certification in Health Education:

HEALTH EDUCATION 201, 401, 411; and two of the following courses: HEALTH EDUCATION 207, 302, 304, and 407.

HEALTH EDUCATION 201. Anatomy and Physiology

A study is made of the structure and function of the various systems of the human body. The course is designed to fill requirements for the teachers of Health and Physical Education.

HEALTH EDUCATION 207. Safety Education

This course is designed to prepare teachers for a relatively new field in education. Opportunities are presented for acquiring knowledges and skills related to safety in the school buildings, on the school grounds, and going to and from school.

Credit: 2 semester-hours

HEALTH EDUCATION 301. Nutrition

This course includes facts about food values and the selection of foods suited to body needs. Good individual and family food and health habits are considered.

Credit: 2 semester-hours

HEALTH EDUCATION 302. Community Health Problems

Principles of healthy community living as applied to family, school, and society are considered. The individual's responsibility regarding public health problems is emphasized. Field trips to nearby health and sanitation centers are included.

Credit: 2 semester-hours

HEALTH EDUCATION 304. Driver Education

In this course the student is instructed in the causes of highway accidents and in the methods of safe driving. Prospective teachers are prepared for certification to teach Driver Education in the high schools of New Jersey.

Credit: 2 semester-hours

HEALTH EDUCATION 401. Methods and Materials in Health Education

This course prepares the teacher to assume the responsibility for organizing and conducting a program of health instruction. The coordination of health with other subject-matter fields and the evaluation of textbooks and audio-visual materials are given special consideration.

Credit: 2 semester-hours

HEALTH EDUCATION 407. Prevention and Care of Athletic Injuries

This is a lecture and laboratory course designed to acquaint the student with ways to prevent and care for the common injuries sustained in athletics. Attention is given to sprains, strains, bruises, burns, and fractures. The responsibility of the coach in caring for injuries is emphasized.

Credit: 2 semester-hours

HEALTH EDUCATION 408. Driver Education and Training PART I

This part consists of a minimum of 20 hours of class recitations and discussions for which home reading and study have been assigned. The following

topics are included: (1) history and development of driver education and training programs; (2) objectives of driver education; (3) local, state, and national traffic safety programs; (4) driver qualifications; (5) psychophysical testing; (6) curriculum content of school courses in driver education and training; (7) construction, operation, and maintenance of automobiles; (8) traffic laws and driver licensing; (9) traffic engineering; (10) pedestrian education and protection; (11) equipment for teaching driver education; (12) liability, costs, and insurance; (13) planning driver education as a part of the daily program of the high school; (14) public relations; (15) records and reports; and (16) visual aids in teaching driver education.

PART II

This part consists of a minimum of 20 hours devoted to the following: (1) behind-the-wheel instruction; (2) demonstrations and student-teacher practice in the car; and (3) road tests in traffic. Home reading and study are required in preparation for these projects.

Prerequisite: License to drive a car

Credit: 2 semester-hours

HEALTH EDUCATION 411. School Health Services

The student is familiarized with the health services available in the school. The part which the teacher plays in coordinating his activities with the school medical staff is emphasized.

Credit: 2 semester-hours

PHYSICAL EDUCATION

The curriculum has been organized for men and women who may desire to teach Physical Education, to coach athletic teams, or to assume leadership in physical education activities in school, camp, club, or playground.

Students who are minors are expected to assist in administering the physical education and sports program of the College and the College High School. While it is not a prerequisite that the men be members of the College athletic teams, or that the women participate in extra-curricular sports and Dance Club, such participation is highly recommended.

The following courses are required for all physical education minors: HEALTH EDUCATION 100, PHYSICAL EDUCATION 201, 202, 206, and 409 for both men and women; PHYSICAL EDUCATION M307-308 and M405 for men; PHYSICAL EDUCATION W307-308, W313 and W405 for women.

PHYSICAL EDUCATION 201. Anatomy and Physiology
(For a description of this course see HEALTH EDUCATION 201.)

PHYSICAL EDUCATION 202. History and Principles of Physical Education

The student is acquainted with the scope of Physical Education. The course deals with the history, philosophies, and objectives underlying the present program. The effects of big muscle activities on the organism are discussed. Reference is given to skill, interpretative and emotional development, and the individual adjustment to standards.

Credit: 2 semester-hours

PHYSICAL EDUCATION 206. Methods of Teaching Games

In this course the student is taught the rules, techniques, and methods of playing and teaching games of low and medium organization.

Credit: 2 semester-hours

PHYSICAL EDUCATION 306. Introduction to Physical Education Tests

A history of the testing program in physical education and a review of the outstanding tests are presented. The evaluating and administering of tests and measurements in the modern school physical education program are discussed.

Credit: 2 semester-hours

PHYSICAL EDUCATION M307-308. Methods of Coaching and Officiating

The offensive and defensive strategy of the various varsity sports are discussed in season. A knowledge of the rules and techniques of officiating the various sports, together with actual experience in coaching and officiating are required. This course runs for two semesters.

Credit: 3 semester-hours each

PHYSICAL EDUCATION W307-308. Methods of Coaching and Officiating

In this course an intensive study is made of seasonal team sports by the prospective teacher and coach. Actual experience is required in coaching; in each sport the student must achieve at least an intra-mural official's rating under the standards of an accredited rating board. This course runs for two semesters.

Credit: 2 semester-hours each

PHYSICAL EDUCATION W313. Methods of Teaching Folk, Tap, and Ballroom Dancing

This course is designed to familiarize the prospective teacher with a repertoire of steps and dances appropriate to various age levels, degrees of competence, and interest. Students are expected to plan, conduct, and evaluate different types of lessons.

PHYSICAL EDUCATION 314. Theory and Practice of Modern Dance

This elective course provides experience in creating choreography, conducting group work in technique and composition, and discussing the history and appreciation of the dance as an art form. It is open to both men and women.

Credit: 2 semester-hours

PHYSICAL EDUCATION M405. Management of Athletic Activities

The student is provided with information essential to the good management of an intra-mural and interscholastic athletic program. Some of the major problems to be considered are: education values, health and safety of participants, insurance, transportation, scheduling, management of finances, budgeting, maintenance of play areas, care of supplies and equipment, state and local athletic associations, and the organization of leagues and meets.

Credit: 2 semester-hours

PHYSICAL EDUCATION W405. Organization of Athletic Activities

The relation of athletic activities to the aims of secondary education and to the objectives of physical education are emphasized. In this course the students begin to formulate activities into definite programs. The organization of such activities as athletic associations, sports days, and track meets is discussed. The problems of finances, purchase and care of supplies and equipment are studied.

Credit: 2 semester-hours

PHYSICAL EDUCATION 407. Physiology of Exercise

The effects of big-muscle activities on the human organism are discussed. Topics such as muscular contraction, coordination, fatigue, and exhaustion are studied. Emphasis is placed upon the effects of speed, strength, and endurance exercises on various age and sex groups.

Credit: 2 semester hours

PHYSICAL EDUCATION 409. Organization and Administration of Physical Education

The details of organizing the units of the physical education program are discussed. Various topics, such as legislation, financing, curriculum construction, grading, excuses, plant facilities, supplies and equipment, and office management are considered.

Credit: 2 semester-hours

PHYSICAL EDUCATION 410. Water Safety and First Aid

This course includes intensive instruction in swimming, diving, water sports, boating, canoeing, water safety, and first aid. Students can qualify for Red Cross certification during this course.

RECREATION

In many communities there is a need for specially trained leaders who can direct recreational programs. The courses listed are designed to offer training to teachers who are interested in specializing in this field.

RECREATION 203. Introduction to Recreation

This course is an introduction to the field of recreation leadership. The social influence and the historical movements which have created the philosophy of American recreation are stressed. A study is made of the various areas of recreation and their relation to the secondary school pupil.

Credit: 2 semester-hours

RECREATION 307. Arts and Crafts

Techniques in arts and crafts used in the various recreational programs are presented so that teachers will be familiar with materials and tools, with special emphasis given to the creative activity involved. Wood craft, paper craft, leather craft, metal craft, as well as painting and clay work, are included.

Credit: 2 semester-hours

RECREATION 308. Recreational Games, Individual and Dual Sports

This course is designed to provide students with an opportunity to become proficient in activities such as golf, tennis, fencing, badminton, archery bowling, table tennis, handball, and shuffleboard in order to direct school classes, extra-curricular clubs, or recreation groups.

Credit: 2 semester-hours

RECREATION 310. Camping Activities

The history and philosophy of camping as an educational medium are presented. A study of the various types of camps and camp programs is included. Nature lore, actual camping experience, and field trips constitute a valuable part of this course.

Credit: 2 semester-hours

RECREATION 312. Organization and Administration of Recreation

This course includes the legal aspects, financing, records and reports, programs, personnel problems, and public relations work encountered in the operation of various recreational systems.

Credit: 2 semester-hours

RECREATION 405. Practice and Problems in Recreation

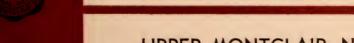
Under supervision the student collects recreational and activity materials suited to his own particular needs. Visits are made to playgrounds, recreational centers, and the student is given an opportunity for practical experience in the planning and direction of recreational activities on the campus.





NEW JERSEY STATE TEACHERS COLLEGE AT MONTCLAIR

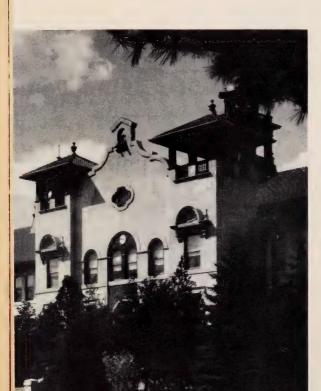
UNDERGRADUATE BULLETIN







DORMITORY INTERIOR



MAIN BUILDING

Bulletin of Information

AND

Catalog of Courses

1952-1954



New Jersey State Teachers College at Montclair

CALENDAR FOR 1952-53

1952

September 8-9-10

Registration, tests, and beginning of classes Monday, Tuesday, and Wednesday

October 13, Monday October 14, Tuesday

November 11, Tuesday Armistice Day (no classes)

November 26, Wednesday December 1, Monday December 20, Saturday

Thanksgiving recess begins 3:00 P.M. Thanksgiving recess ends 8:30 A.M.

Christmas vacation begins (Part-Time classes will meet)

Columbus Day (no classes)

Faculty Institute (no classes)

1953

January 5, Monday January 30, Friday

Christmas vacation ends 8:30 A.M. First semester ends 3:00 P.M.

February 2-3, Monday and Tuesday

Registration and beginning of second

semester classes Lincoln's Birthday

February 12, Thursday February 23, Monday

Washington's Birthday

March 9, Monday

Entrance Examinations (no classes)

April 2, Thursday

Spring recess begins 3:00 P.M. (Part-Time

classes will meet)

April 13, Monday May 30, Saturday

Spring recess ends 8:30 A.M. Memorial Day (no classes)

June 8-13, Monday to Saturday

Final examinations and Commencement activities

Summer Session Calendar

1953

June 29, Monday

Final Registration

June 30, Tuesday July 4, Saturday

Classes begin Holiday (no classes)

August 11, Tuesday

Final examinations and close of summer session

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Business, Dormitory, and Secretarial Staff

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HENRY STEINER Assistant E	Business Manager
OTTO CORDES, P.E Superintendent of Building	ngs and Grounds
ETHEL L. BLODGETT	Stewardess
MARCIA F. HIBBS	Ormitory Hostess
OLIVE MEADE	ormitory Hostess
FRANCES VINAL, A.B Secretary	to the President
NANCY J. PERRY	istrative Secretary
MARIE FRAZEE, A.B., A.M. Secretary to the De	an of Instruction
JOYCE ROTHE Secretary, G	raduate Division
ESTHER B. SPENGEMAN, A.B. Secretary to the l	Integration Office
RUTH D. FREEMAN Assistant in Admission	ons and Research
MARY INSINNA Secretary	y, Teaching Aids

Part I

GENERAL INFORMATION

GENERAL OBJECTIVE

The general aim of the College is the same as that for all education in a democracy—the preparation of youth for a constructive and profitable life in society. This general citizenship aim is fundamental to the course of study and the method of teaching.

The New Jersey State Teachers College at Montclair is a professional school which prepares teachers for the junior and senior high schools of the State. This definite objective has been the controlling factor in the development of the curricula, teaching procedures, extra-curricular activities, and college spirit and has tended to unify all activities—professional, cultural, and social.

The College is organized for those who have a sincere interest in promoting the general welfare of society through the medium of the secondary schools of the State. Those who have the natural ability to become friends, guides, and leaders of youth should consider the opportunities offered by the profession of teaching.

FUNDAMENTAL PRINCIPLES AND POLICIES

The following principles control the organization and development of the College. The second statement of each principle is somewhat explanatory of the first and in most cases is addressed particularly to students.

- (1) The College should have clearly defined objectives which should limit and control its offerings and activities.

 Entering students should understand what the College has to offer in relation to their interest and purposes.
- (2) The College should be so organized and administered as to promote the interests and welfare of prospective workers in the profession.

 The students should be offered the most desirable opportunities for the promotion of their educational interests and success, their physical health and energy, their emotional adjustments and stability, and their social attitudes and habits.
- (3) To teach should be a privilege and not a right, i.e., candidates for teacher preparation should be selected.

 The students who are to be privileged to prepare for teaching must demonstrate their intellectual, personal, and scholastic fitness for the profession.
- (4) The relative value of the curricular materials used in a teachers college should be judged by the nature and needs of the schools and communities which it serves. Though teachers are exponents of broad culture, yet the selection of the necessary materials for a prospective teacher must be made on the basis of professional service.

- (5) Teacher preparation should be differentiated and specialized in accordance with the aims and organization of schools to be served.

 The differentiated program at Montclair provides for the training of junior and senior high school teachers and permits specialization within this program in English, foreign languages, mathematics, science, social studies, administration and guidance, business education, geography, music, physical education, and speech.
- (6) Prospective teachers should acquire a rich background of general culture including a knowledge of present-day problems.

 The professional-cultural background studies offer a broad human interest in the social, political, economic, industrial, religious, scientific, literary, and aesthetic phases of life.
- (7) Professional scholarship should be sound.

 Professional scholarship refers particularly to the scholarship required in the student's major and minor fields of specialization. Each student is required to complete approximately thirty-three semester-hours in his major and eighteen semester-hours in his minor field of interest.
- (8) Prospective secondary school teachers should not only acquire a teaching knowledge of subject-matter but also a teaching knowledge of adolescent pupils involving the theories and techniques in their instruction.

 The professional objectives provide teachers college students with a motive for learning which in turn insists upon functional knowledge. The adjustment of this knowledge to the aptitudes and needs of high school pupils requires methods and skills in instruction.
- (9) The program of studies and activities of a teachers college should be progressive, sequential, and integrated. Education is confronted with the problem of bringing isolated courses back into their natural relationships or into a unified body of knowledge in order to promote broader understanding, clearer meanings, and balanced judgment.
- (10) The College should seek persistently to maintain high standards of excellence together with practical concepts of usefulness.

 Students must give their best efforts, maintain high standards of scholarship, and demonstrate ability to use their knowledge and skills.
- (11) Open-mindedness on the part of all participants in teacher preparation should be encouraged in order to facilitate individual adjustments and growth.

 A student's experience in college stimulates intellectual curiosity along with an interest in truth. Such attitudes promote a recognition and understanding of differences and an ability to adjust and grow in a changing world.

History

In 1903 the State Board of Education recommended that a Normal School be established in the northern part of the State of New Jersey. The following year the Legislature purchased a site of twenty-five acres in Upper Montclair. The main building, College Hall, was completed in 1908, and the first class was admitted in September of that year.

Seven years later Edward Russ Hall was built with the bequest of the Honorable Edward Russ, who at the time of his death was a member of the State Board of Education and chairman of the Normal School Committee. Other buildings were added to the campus in 1928 and 1929.

Additional land, lying to the north of the main campus, was purchased in 1927 and 1929, bringing the total area to seventy acres.

On May 27, 1927, the State Board of Education passed resolutions as recommended by the State Department of Public Instruction establishing the State

Teachers College at Montclair for the education of teachers for the secondary schools. The first class was graduated from the four-year college curriculum in June, 1930.

Extension courses were added to the teachers college program in 1929. The summer session was established in 1930. Late in the spring of 1932 the State Board of Education voted that the College should offer graduate courses and grant a Master's degree.

Professional and Academic Status

The New Jersey State Teachers College at Montclair is a fully accredited member of the American Association of Colleges for Teacher Education, the Middle States Association of Colleges and Secondary Schools, the American Association of University Women, and the Association of American Universities. Credits are exchangeable among colleges and universities which are members of the above regional and national associations.

Location

The College is located in Upper Montclair about three miles from Montclair Center. The city of Montclair and the college campus are located on the east side of the Watchung mountain, which extends from north to south. From this elevation the campus commands a view of unusual interest and beauty. The city of New York, which is about twelve miles to the east, forms the background of the campus view. In the foreground may be seen the gardens, towns, and cities of Bergen, Hudson, Essex, and Passaic counties. The view is impressive by night when one sees the myriad lights of this metropolitan section.

The college campus may be reached by the Lackawanna Railroad to Montclair, and then by bus to the southeast entrance; by the Erie Railroad to the Montclair Heights Station, which is near the south entrance; and also by direct bus lines from New York, Newark, the Oranges, and Paterson.

Grounds and Buildings

The various legislative appropriations for land have provided the College with a campus of seventy acres. The campus is developed with roadways, walks, shrubbery, wooded sections, lawns, tennis and other recreational courts, athletic fields, gardens, and an outdoor theatre.

College Hall contains administration offices, library, cafeteria, gymnasium, and classrooms.

Edward Russ Hall and Chapin Hall are maintained by the State as dormitories for the college women. Both buildings are fireproof in construction and are designed in the Spanish Mission style with white stucco walls and red Spanish tile roofs to conform in character to the other buildings on the campus. Each dormitory accommodates about one hundred students with single and double rooms, laundry, bathrooms, infirmary, storage rooms, reception room, living

room, and offices for hostesses, doctor, and nurse. The living rooms are the social centers and are designed to accommodate conferences, clubs, dances, receptions, and other social activities. The dining rooms are located in Edward Russ Hall.

The College High School is located to the north and east of College Hall. It contains offices, an assembly room, a gymnasium, a library, domestic science rooms, classrooms for the high-school students, and conference rooms for college students.

A second athletic field was completed in the spring of 1938. It provides a football field, a running track, and a baseball field. Concrete bleachers line the east side of the football field and running track, furnishing ample seating for spectators.

Recently a small recreation building has been completed on the campus. This is used for club meetings, recreation courses, and similar functions.

In cooperation with the Federal Works Agency the College has erected the following temporary buildings on the campus:

FWA Building No. 1, containing offices and classrooms.

FWA Building No. 2, containing offices and classrooms.

FWA Building No. 3, containing offices, classrooms, and science laboratories.

FWA Building No. 4, containing offices, classrooms, and music rehearsal rooms.

The Federal Public Housing Administration and the New Jersey State Department of Economic Development have erected on the campus eighteen temporary buildings containing thirty-nine apartments for married students. Most of these apartments contain a living room, kitchen, bathroom, and two bedrooms. Some are furnished.

Expenses

General Expenses for Regular College Year of approximately 37 weeks

The tuition fee for residents of the State of New Jersey is \$100 a year. The tuition fee for non-residents is \$13 per semester-hour of credit.

The Student Government Association fee is \$30 a year.

The overall general service charge for music majors is \$12.50 per semester.

The overall general service charge for all other students is \$10 per semester.

The tuition fee is payable in two installments, one-half in September and onehalf in January. The student fees and service charges are also payable in two installments, one-half in September and one-half in January.

These charges are subject to revision.

Living Expenses for Regular Year

The charge for board and room in dormitories is \$536.50 for the regular college year of approximately 37 weeks. This charge is subject to change due to variations in living costs.

Payments aré made as follows:

\$145.00 on or before registration in September.

\$123.25 on or before November 1.

\$145.00 on or before registration in February.

\$123.25 on or before April 1.

Women students who plan to live in dormitories should consult the Dean of Women or make written application. Men students should make application to the Dean of Men for housing accommodations. If at any time dormitory accommodations are not available, lists of approved accommodations in private homes will be provided. When dormitory vacancies occur, it is understood that students living in private homes will transfer to fill such vacancies.

Accommodations for Married Students

There is available a limited number of housing accommodations for married students, and application should be made to the Housing Committee.

Student Supply Store

The store aims to supply such books and materials as are in continual demand by the student body and faculty.

Cafeteria

Lunches are served in the cafeteria at cost prices for all students who are not regular boarding-hall students. It is under the same management as the Edward Russ dining room.

Gifts

A generous gift of money from the late Edward Russ has enabled the college to place on its walls many photographs of men eminent in science, philosophy, education, and public affairs, as well as several reproductions of the masterpieces of great artists. At his death Mr. Russ bequeathed a substantial sum of money which has taken permanent form in the building of Edward Russ Hall.

Many other gifts have been presented by normal school and college classes, graduates, and friends. These are now serving a variety of purposes in the College Hall, dormitories, College High School, and on the campus. They are highly prized by the students and faculty as expressions of the good will and generosity of the donors.

Scholarships and Loans

See Financial Adjustments—Page 35.

Admissions

Admission requirements are arranged for three groups of students: those entering the freshman class; those entering with advanced undergraduate credits; and those entering the Graduate Division.

I. Admission to the Freshman Class

Students who are undecided as to whether they should enter the teaching profession are invited to come to the College for personal interviews. All candidates for the freshman class should file their applications with the Registrar before February 15th of the year in which they wish to take the entrance examinations.

- A. Requirements for Admission as adopted by the State Board of Education.
 - 1. Entrance Examinations

All applicants for admission to the freshman class shall take examinations prepared under the direction of the Commissioner of Education.

2. Eligibility for Taking Entrance Examinations

To be eligible to take the entrance examinations for admission an applicant shall furnish the following credentials on the appropriate forms obtainable from the office of the Registrar.

a. Age certification

A statement of the place and date of birth. Applicants shall be at least fifteen years nine months old before taking the entrance examinations.

b. Health report

A report from the family physician concerning the student's condition of health. This report shall be made on a form furnished by the College.

c. Testimonial of character

A testimonial of good moral character from responsible persons not related by blood or marriage to the applicant on a form furnished by the College.

d. High School rating

A rating of the student's character and probable fitness to succeed in college courses. This rating shall be made by the officials of the applicant's secondary school on a form furnished by the College.

e. Certificate of graduation

A certificate showing graduation from the twelfth grade of an approved secondary school or showing that the applicant is scheduled for graduation during the current scholastic year. The units to be accepted for admission to the College are prescribed by the Commissioner of Education as follows:

U	nits
English	4
Mathematics	1
American History and Problems of Democracy	
Science	
Foreign Language	
Additional Social Studies, Science, Language, or Mathematics	
Free Electives	2
Total	5

- (1) Upon recommendation of the high school principal concerned substitutions for the units listed above may be made for an applicant who is in the highest quarter of his graduating class. When a request for a substitution of this kind is made, it will be considered by a special committee consisting of the head of the major department concerned, the Director of Admissions, and the Dean of Instruction. If the above named committee recommends that a substitution be made, the recommendation will be referred to the President of the College for a final decision.
- (2) Candidates for the Business Education Curriculum may substitute two units of work in these subjects for the Language entrance requirement.

f. Filing official transcripts of graduation Applicants who have not filed an official and complete transcript showing graduation from high school before the date of the entrance examinations shall do so before registration in the College.

3. Physical Examination

At entrance all candidates must be examined by a physician selected by the College to determine whether they are free from any disease or infirmity which would unfit them for teaching; and an examination by this physician may be required of any student at any time in his course, to determine whether his physical condition warrants his continuance in the College.

The State also requires all students to submit evidence each year of freedom from tuberculosis. The College endeavors to provide suitable tests each year for the student at a minimum of expense.

4. Speech Entrance Test Each candidate for the freshman class and all students seeking admission with advanced standing will take a speech entrance test. Candidates with serious difficulties may be refused admission, or admitted conditionally.

B. High School Prerequisites for College Majors and Minors.

The major and minor fields of interest that are offered students by the College are discussed under College Curricula (Page 61 and following). The College recommends that students include in their high school credits at entrance the number of units indicated in the following table for the subjects in which they intend to specialize:

	High School Units Recommended
Majors	Recommended
Accounting and Business Practice	1 to 2
French, Latin, or Spanish	2 to 4
Mathematics	$3\frac{1}{2}$ to 4
Music	1 to 2
Science	1 to 3
Social Studies	2 to 3
Speech (if possible)	1 to 2
Minors	High School Units Recommended
Accounting and Business Practice	1
Biology	ī
English	4
French, Latin, or Spanish	2 to 4
Geography	1
History	2 to 3
Mathematics	3 to 4
Music	1
Physical Education	1
Physical Science	1 to 2
Political Science and Economics	2 to 3
Social Business	1
Speech (if possible)	1

II. Admission to the Sophomore, Junior, or Senior Class

A limited number of students may be admitted with advanced standing. To be eligible, a candidate must have had at least a year of college work. The acceptance of such a candidate is dependent upon his scholarship, as evidenced by the credentials submitted, personal fitness, and the possible number of

vacancies in the class for which he is eligible. Definite acceptance of candidates for advanced standing cannot be made long in advance for any given semester. Students wishing to apply for admission on advanced standing should write for the necessary form of application to the Registrar, State Teachers College, Upper Montclair, New Jersey.

III. Admission to the Graduate Division

Application blanks for admission to graduate work may be secured from the Chairman of the Graduate Committee.

Official transcripts of all undergraduate work must accompany the written application. No action is taken until such transcripts are received.

Upon receipt of the application blank and the transcripts of undergraduate work, the student is asked to have personal conferences with the department adviser of the department in which he wishes to major, and with the Chairman of the Graduate Committee. These conferences are a prerequisite to the action of the committee on admission. The student is notified in writing as to whether or not he has been accepted.

For more complete information see the Graduate Bulletin.

Placement Bureau

See the Department of Professional Integration, Page 52.

The Alumni Association

All graduates of Montclair are members of the Alumni Association and active members if they pay dues. Association officers, with the advice of other members and Faculty members of the College, plan yearly the schedule of events to which all graduates and their guests are invited. Alumni are notified once at the beginning of the year, and active members are notified again before each event takes place.

The Association strives to establish and continue lasting friendships and contacts of both social and professional natures among its members and between graduates and the College.

Number of Graduates

Normal School Diplomas-3,921

A.B. Degrees-4,406

A.M. Degrees-1,256

ALUMNI OFFICERS, 1952-1953

President
Vice-President PHILIP PERKINS '40
Recording Secretary
Treasurer ISABEL McCoy '22
Assistant Treasurer

ADMINISTRATIVE ORGANIZATION

The College is organized for administrative purposes into three divisions: business administration, instructional administration, and personnel administration. These divisions are under the direction of the President of the College and the Administrative Council in cooperation with the faculty.

Business Division

The business division has charge of financial matters such as appropriations, receipts, expenditures, inventories, audits, and reports. This division also superintends buildings and grounds, and food-service operations.

Students pay their tuition and fees at the Business Office.

Instructional Division

The instructional division centers its interests in curricula, teaching materials, teaching and supervisory programs, and teaching procedures. The Dean of Instruction is assisted by the Registrar, the heads of departments, the librarians, instructional committees, and general staff.

Students who wish advice or help in matters related to courses, programs of studies, advanced standing, instructional procedures, and scholastic clubs consult the Dean of Instruction, the Registrar, department heads, and staff advisers.

Matters pertaining to records, reports, credits, and schedules are discussed with the Registrar.

Personnel Division

The personnel division has the responsibility of promoting the physical health, mental health, work habits, and social life of all students. The following staff members are engaged in personnel work: Director of Personnel and Guidance, physical education instructors, college physician, college nurse, mental hygiene instructors, research director, Dean of Women, Dean of Men, Veterans' Counselor, dormitory hostesses, and staff and student advisers.

The personnel division endeavors to become familiar with the abilities, interests, and needs of all students through personal interviews, counseling, keeping records, and providing for adequate personal service.

LIBRARY

Conveniently located on the main floor of College Hall is the library of 61,000 volumes with a spacious reading and reference room and two smaller reading rooms housing the music collections and the curriculum laboratory and textbook exhibit. Special collections include the Howe collection of organ music; the Mark Andrews music library; the Webster Memorial collection of modern poetry, including many first editions and autographed copies; the Finley collection of science textbooks, which has been augmented by early textbooks of his-

torical significance from other sources; the Carnegie Secondary Art set of books and pictures; a collection of New Jersiana; and a recent outstanding gift, the Roy W. Hatch collection of Lincolniana. The textbook collection of 4,800 volumes includes the most recent textbooks in all subjects on both the elementary and secondary level and curricula from the majority of communities and counties of New Jersey as well as outstanding curricula from other states. The library also maintains a complete file of bulletins of the U. S. Office of Education for which this library is designated as an official depository library in the area. An up-to-date and widely-used file of pamphlets, maps, and pictures, classified by subject, is available to all students.

In keeping with the policy of the College as a whole, the field of education is especially complete, and at the same time the subject-matter fields are all well covered on both the graduate and the undergraduate level with a well-rounded collection, including an outstanding group of books, portfolios, and reproductions of modern art. Reading for fun and enjoyment is stimulated by the constantly changing group of "Recent Books" conveniently located in the library foyer.

All of the books, including the reference collection, are on open shelves to which the students, as well as faculty, graduates, and teachers-in-service, have access and borrowing privileges. This open-shelf policy applies even to the periodical collection which consists of back issues of all but the most ephemeral of the 300 currently received periodicals. Bound volumes of magazines total over 2,200.

Supplementing the College library is the library of the College High School which is a large, pleasant room housing 3,800 volumes and located in the College High School. These books are catalogued at the College library and are available through the main catalog as well as through the catalog of the College High School. The High School Librarian works in close cooperation with the four members of the College library staff, particularly in the field of literature for adolescents, in which an extensive and up-to-date collection is maintained.

NEW TOOLS FOR LEARNING BUREAU

The New Tools for Learning Bureau is a service bureau of the College which emphasizes non-verbal and non-traditional techniques of learning. Some of the *tools* are *new* only in the sense that they are new to the persons who use them. They are non-verbal only in the sense that words are regarded as secondary rather than primary tools of learning.

The Bureau functions through three divisions:

- (1) The Audio-Visual Aids Service supplies films, film-strips, slides, recordings, and transcriptions to students and teachers in the College and to teachers in the field through its film and record library and by rental from established agencies. It cooperates with the Sound Studio of the Department of Speech in the recording and circulation of programs originating here or taken from the air.
 - (2) The Teaching Aids Service supplies to students and teachers printed

materials collected from industrial, business, governmental, and social agencies. There is a lending library of these materials and also a constantly changing collection of items for free distribution. A comprehensive card file of instructional aids is maintained. Fifteen classified bibliographies of this material have been published and are available at low cost. A consultation service on all types of instructional aids is also offered.

(3) The Bureau of Field Studies offers ten educational travel courses covering all parts of the United States. They are described on pages 143, 144, 145, and 146. Social Studies 302, Field Studies in Urban Life, is required of the social studies majors in their junior year. The other field studies courses are elective for three points each of undergraduate or graduate credit, except for Social Studies 462, Continental United States, which yields ten credits and Social Studies 465, 466, and 467 yielding two credits each. Social Studies 460, Social Studies 461, and Social Studies 462 are offered in successive years. Social Studies 463, 464, and 466 are usually offered during the Christmas holidays. Social Studies 302 and Social Studies 459 are offered during the College year. Social Studies 465 and 467 are usually offered during the Easter holidays.

NEW JERSEY STATE SCHOOL OF CONSERVATION

The six State Teachers Colleges, the State Department of Education, and the State Department of Conservation and Economic Development jointly operate the New Jersey State School of Conservation at Lake Wapalanne in Stokes Forest, Sussex County. Courses offered include field studies in biological sciences, field studies in physical sciences, conservation of forests and wild life, conservation of soils and water, field geography, water safety and first aid, camping education, rural sociology, and related subjects.

The facilities at Lake Wapalanne are unusually good. The camp buildings were constructed by the Civilian Conservation Corps and include a dining hall, an infirmary, an administration building, an assembly-recreation-library building, a staff lodge, bath-houses, latrines, and twelve living cabins.

Descriptions of course offerings at the New Jersey State School of Conservation are contained in special announcements which may be had from the New Jersey State Teachers College at Montclair.

THE GRADUATE DIVISION

Graduate courses were first offered at the State Teachers College at Montclair in the summer term of 1932 and have been offered in all regular and summer sessions since. In order that the work may be available to teachers and administrators in service, the courses are scheduled during the academic year in the late afternoons, evenings, and on Saturdays. The courses are given by the members of the college staff and are granted residence credit; thus, it is possible for teachers-in-service to earn a Master's degree without taking a leave of absence from their teaching positions. That the College is advantageously located for such work is shown by the fact that the majority of the high-school teachers of the State are within a radius of twenty-five miles of the campus.

From the time graduate courses were instituted there has been an enthusiastic response to the work. There are now more than six hundred students matriculated for the graduate degree. Among the institutions of higher learning from which these matriculants come are: Barnard, Colby, Colgate, College of St. Elizabeth, Columbia, Cornell, Drew, Duke, Lafayette, New Jersey College for Women, New York University, Oberlin, Pennsylvania, Rutgers, Swarthmore, Syracuse, Tufts, Vassar, and Wheaton.

The work is organized to care for two groups of graduate students; those who are teaching and wish to take courses in the late afternoons, evenings, and on Saturday mornings, and those who wish to do full-time residence work. It is also organized for two types of students as regards previous preparation; graduates of liberal arts colleges, and graduates of teacher-training colleges. Some of the education courses required for certification in the State of New Jersey may be taken on the graduate level. The number of credits so earned which may be applied on the A.M. degree, of necessity, varies according to the graduate requirements in the various major areas of specialization. Inasmuch as no graduate credit is given for supervised student-teaching, graduate students from liberal arts colleges, as a rule, spend a college year and a summer term or an additional semester to meet State requirements for certification and the conferment of the Master's degree. The time required depends upon the character and amount of undergraduate credits.

Majors in graduate work are offered in the fields of Administration and Supervision, Biology, Business Education, English, Mathematics, Personnel and Guidance, Physical Science, Science, and Social Studies. In each curriculum there is a core of educational courses and major subject-matter courses. The amount of each type of work depends on the candidate's undergraduate work and is determined by the Graduate Committee. The curricula in Administration and Supervision and in Personnel and Guidance are limited largely to specialized professional courses in order to meet State certification requirements.

For admission requirements, see Page 23.

Students interested in this work are advised to write to the Chairman of the Graduate Committee for a bulletin and full information.

OFFERINGS FOR TEACHERS-IN-SERVICE

The College now offers senior-graduate and graduate courses on campus during the late afternoon, evening, and Saturday morning, and off campus in various centers, for the convenience of those desiring professional growth through these means.

Part-Time and Extension Courses

Part-time courses, carrying residence credit, for students unable to attend the College during the regular full-time daily program-hours, are offered on the campus on Tuesday and Thursday afternoons, from 4:15 to 6:00 p.m; on Tues-

day and Thursday evenings from 7:15 to 9:00 p.m.; and on Saturday mornings from 8:45 to 12:30 p.m.

Courses of the Extension Division are offered off-campus in any community in New Jersey in which the teachers-in-service desire the New Jersey State Teachers College at Montclair to offer a particular course and if that course appears in either the Undergraduate Catalog or the Graduate Bulletin of the College. It is necessary that twenty or more students enroll in such an Extension course.

Bulletins are published for the information of those who wish to attend part-time or extension courses. Courses which meet for one two-hour session a week for sixteen weeks receive two semester-hours' credit. Credits gained in part-time and extension courses are accepted toward a degree or a secondary teacher's certificate. Only those students should register who are willing to meet the full requirements and take all examinations. Permission may be granted in special cases for students to take work for no credit. Other information, including bulletins, may be obtained from the Secretary of the Part-Time and Extension Division, State Teachers College, Upper Montclair, New Jersey.

Summer Session

Those who are eligible for admission to the summer session are: (1) elementary, junior, and senior high school teachers; (2) undergraduate and graduate students of liberal arts colleges seeking secondary certificates; (3) graduate students seeking the Master's degree; (4) experienced teachers seeking administrator's and supervisor's certificates; (5) graduates of the two and three-year normal school courses who are working for a Bachelor of Arts degree; (6) normal school, teachers college, and liberal arts college students, who have been permitted to meet certain requirements through summer session courses; (7) laymen who may wish to take certain courses because of their cultural interest; and (8) high school graduates.

The summer session is attended by approximately six hundred students, representing about seventy-five teachers colleges, liberal arts colleges, and universities located in many states. Of these, somewhat fewer than one-quarter are undergraduate students; approximately eighty per cent hold bachelor's degrees; and about five per cent hold master's degrees. Because of the preponderance of graduate students a minimum of undergraduate courses are offered in the summer session.

The summer session begins the first week of July and extends over a period of six weeks. For other information, including bulletins of the summer session, address the Secretary of the Summer Session, State Teachers College, Upper Montclair, New Jersey.

The Laboratory School

See The Laboratory School—Page 41.

Part II

STUDENT PERSONNEL AND ACTIVITIES

STUDENT INTERESTS AND ACTIVITIES

Orientation and Guidance of Freshmen

During the first week of the college year, freshman students report for examinations, organization meetings, social functions, athletics, conferences, and instructions. The personnel division of the College is active in gaining necessary information, in preparing reports, and in furnishing guidance. The Student Government Association is active in its cooperation. It explains and discusses various student clubs, privileges, and responsibilities. Staff members meet the new students for personal interviews, and during the semester group meetings are held with advisers. In general, Freshman Week is a time for orientation, adjustments, guidance, instructions, examinations, and social contacts.

General Citizenship

A spirit of readiness to understand objectives and to assume responsibilities grows out of Freshman Week. Each student realizes that he has become part of a State enterprise and of an active group of professional workers. Social and professional consciousness begins to take the place of individual motives.

From the first day each student is expected to make definite contributions to the welfare of his associates and to the life of the College. In fact, any student who cannot demonstrate initiative and leadership through cooperation and service should not train for the profession of teaching.

Student Organization

Students have initiated and organized councils, clubs, associations, and committees that are rendering a great variety of service which is of a worthy character. The Student Government Association is the central organization in general control of students' extra-curricular activities. It is made up of representatives from the student body and faculty, and takes as its responsibility the promotion of scholarship, culture, professional zeal, social and physical welfare, extra-curricular activities, and the general conduct of the student body.

The Student Government Association, its committees and allied organizations, through their aims, spirit, and accomplishments, commend themselves to the faculty and the profession. Naturally, there are many ways in which the students and their organizations express their ideas of service, though at present their principal organized activities may be listed as follows:

Agora (Men's Organization)

Aldornia (Honorary English Club)

Aphesteon (Honorary Mathematics Club)

Band

Bridge Club

Bureau of Student Publications

Cercle Français Cheerleaders Chess Club

Choir Chorus

Clio (Social Studies Women's Club)

Commuters' Club Creative Writing Club

Dalphac (Women's Organization)

Dance Club English Club

Epsilon Mu Epsilon (Business Education

Club) Fencing Club

Forum (Men's Discussion Club) Future Teachers of America

Geography Club

International Relations Club

Inter Nos (Classical Language Club)
Intervarsity Christian Fellowship

Kappa Delta Pi (National Honorary Society

in Education)

The work of the Student Covernment

La Campana Men in Music

Men's Athletic Association

Montclarion Newman Club Opera Workshop

Orchestra

Phi Lambda Pi (Men's Organization) Pi Omega Pi, Beta Sigma Chapter (National Honorary Business Education

Players

Pro Musica (Honorary Music Society)

Psychology Club

Society)

Quarterly

Rohwec (Honorary Social Studies Club)
Rostrum (Co-ed Debating and Discussion

Group)
Science Club
Senate

Sigma Alpha Eta Sigma Delta Pi (V

Sigma Delta Pi (Women's Organization) Sigma Phi Mu (General Mathematics Club)

Spanish Club

Student World Federalists

Tribe (Men's Varsity Athletic Club Women's Athletic Association Zeta Phi (Speech Playhouse)

The work of the Student Government Association, its committees and organizations, includes such activities as follows:

Preparation and presentation of college and high school assemblies.

Establishment and maintenance of college publications, including newspaper, hand book, magazine, and yearbook.

Study of the social needs of the College and methods of providing for them properly and adequately.

Participation in the supervision of athletics.

Promotion of the scholarship standards of sections or classes.

The chartering of college clubs.

Supervision of the bulletin board and student announcements.

Assistance in matters of student employment and general student aid.

Assistance in maintaining favorable working conditions throughout the College.

Reception and entertainment of visitors and delegations.

Collection of data and preparation of reports relative to college enterprises and their management.

Representation of the College at meetings of various organizations and the furnishing of speakers for high school assemblies.

Promotion of college clubs and organizations.

Provision for a financing system which adequately serves all worthy college enterprises.

Cooperation in scheduling events and activities on the campus.

Participation in granting awards and recognitions.

Music and Art

Cultural background courses in music and art are required of all students. In addition, music electives and the musical organizations of the College provide opportunities for further study in fields of special interests. For requirements for a major or minor in music, see page 101.

The musical organizations of the College include:

The a cappella choir
 The Orchestra
 The Band
 The Chorus

5. The Opera Workshop 6. The Music Workshop, including various types of vocal and instrumental en-

Sunday evening concerts are given throughout the school year by guest artists, music faculty, and advanced music students.

Because of the proximity of New York City, the College is able to offer unusually fine opportunities in music. Field trips are frequently made to the Metropolitan Opera, the New York Philharmonic Orchestra, and Town Hall concerts.

The Art Workshop gives all students an opportunity to work creatively with various artistic media—oil paints, water colors, block prints, pastels, clay, plaster, and stone. The Workshop includes a ceramic studio complete with potters' wheels, kilns, and a glaze laboratory.

Frequent field trips are taken to art museums in New York City and the metropolitan area.

Dramatics

Work in dramatics is varied and comprehensive. In the classroom dramatic literature is studied in historical perspective, as an art-form and as a mirror of social institutions. The production of high school and college plays is studied and practiced in technical courses in which instruction in acting, stage-craft, make-up, lighting, costumes, and directing may be obtained.

Players, an undergraduate club, sponsors two major productions a year. Use of the auditorium of the College High School as a Little Theatre enables Players to present repeated performances of each production. This invaluable experience in the solution of problems facing the high school dramatics coach is available to any student in the entire college. Players also sponsors an annual Drama Day at which the dramatic organizations of high schools are invited to present their work for professional criticism.

The amphitheatre affords an ideal setting for assemblies, festivals, dance recitals, pageants, and plays adapted for the outdoor theatre.

Assembly Programs

During the year a series of assembly programs is offered for the cultural benefit of the students and faculty. These programs include presentations by outside artists, student recitals and dramatizations, and student government meetings. These assembly programs are an important part of the college offering for students, and students are expected to participate regularly.

Student Exchange with French and Spanish-Speaking Countries

The College has prepared a program of teacher training in the field of

modern foreign languages. After successful completion of the prerequisite years of high-school French or Spanish, language study is continued at Montclair in classes conducted entirely in French or Spanish. If the student has shown promising aptitude in his foreign language work during his freshman, sophomore, and junior years, he may be offered the opportunity to study abroad for a year in some foreign teachers college or university, under Montclair auspices. During periods of uncertainty abroad, students have gone to Canada, Mexico, and South America.

During the year of study abroad, these Montclair students follow a comprehensive program of work, including classes in language, literature, history, art, music, psychology, etc., working with their French or Spanish-speaking classmates, submitting to the same kind of discipline, enjoying their pleasures, and experiencing their daily routine. In addition to scholarly achievement that connot be equaled by any amount of classroom work in college, this year of study gives students a broad outlook on life, a sympathetic attitude toward the problems of other peoples, and an understanding of world citizenship—in fact, a life experience that is bound to make them better teachers of foreign languages for American high school boys and girls.

College Athletics

The College provides three athletic fields, one play field, and four tennis courts, two gymnasiums, and other facilities for promoting recreational activities. The principal sports for men normally include football, basketball, baseball, track and field, golf and tennis. College varsity teams in football, basketball, baseball, tennis, track, golf, fencing, and bowling maintain in normal years full schedules with colleges located in five eastern states and the District of Columbia. The College junior teams play scheduled games within the State. Intramural athletics are promoted.

The women's athletic activities include volley ball, hockey, basketball, softball, tennis, and archery. These sports are organized and managed by the Women's Athletic Association, a very active undergraduate organization. Competition is intramural, with sport days and invitation games providing variety and added interest. The Modern Dance Club, while not an athletic activity, is an important part of the women's activity program.

Publications

The Student Handbook supplies instructions, Student Government Association rules, descriptions of organizations, songs, cheers, and other matter of special value to new students.

The Montclarion, the student news publication, covers a variety of subjects of special interest to students. It is published semi-monthly.

The Montclair Quarterly is the student literary magazine published by the student body.

La Campana, the college annual, is published each year by the Senior Class and contains general information of special value to graduates and their friends.

The College High Crier, student newspaper in the College High School, affords college students an opportunity to learn advisership through working with the young high school editors.

La Campanilla, the yearbook of College High School, is sponsored and published by the senior class of College High School.

Publications of the Bureau of Field Studies include pamphlets and leaflets describing field studies.

Publications of the Teaching Aids Service of the College Library include lists of audio-visual aids in many subject matter fields.

Dormitory Life

Dormitory students have opportunities for social activities, entertainments, and athletics. These activities are promoted by the Dean of Women, the Dean of Men, the Director of Personnel and Guidance, the dormitory hostesses, the faculty, and the Inter-Dormitory Council.

The regulations governing dormitory life are made through the cooperation of the dormitory councils, the Dean of Women, the Dean of Men, and the dormitory hostesses. These regulations cover such matters as study hours, weekend permissions, social activities, guests, schedule of meals, care of rooms, care of the sick, and chaperonage.

STUDENT PERSONNEL ADJUSTMENTS

The accomplishments of individual students depend upon their energy, adaptability, and general personal fitness. Therefore, the College invests profitably in promoting the physical health, emotional stability, and social attitudes and habits of all students.

Physical Health

The State Teachers College is located on an elevation in clean, open country. The campus furnishes adequate facilities for healthful outdoor exercises, and the two gymnasiums provide for physical education, indoor sports, and dances.

The College employs during the fall and spring semesters one full-time physician, one part-time physician, and three resident nurses who give the students thorough physical examinations and advise them in regard to medical attention and correction of defects. The College conducts an annual tuberculosis program with chest X-rays of students and other College personnel. An annual physical examination by the College physician is required of all students. The health of the dormitory students is guarded with special care. Infirmaries are maintained in Edward Russ Hall and in Chapin Hall under the supervision of the college physician. The Dean of Women, the Dean of Men, the Director of Personnel and Guidance, and physical education instructors advise concerning health facilities and conditions. During the entire year, including the summer months, a full time nurse lives in the dormitory in order that she may serve dormitory students and oversee the general health conditions of all students. A voluntary Medical

Reimbursement Insurance policy is available to students at \$6.00 per semester to help pay hospital and surgical bills incurred as a result of illness or injury.

Mental Health

In the freshman year the course in Mental Hygiene and Personal Adjustment serves to provide for group discussion of problems of personal and professional orientation to college life.

Students are responsible to their advisers for individual conferences. Advisers are free to formulate and carry out their own plans for serving individual and group needs of students assigned to them.

The student advisory and guidance program is extended so that it reaches the whole student body. All students are encouraged to make contacts with staff members in an informal fashion so that they may profit from a more personal relationship than that of the more formal classroom association. Special problems of adjustment which arise from time to time are referred to the psychology and mental-hygiene staff. Students who are in need of medical and psychiatric assistance are aided in obtaining proper diagnosis and treatment. It is desirable that students avail themselves of the opportunities offered by such types of service.

An organized sequence of courses is planned for graduate students who wish to prepare for guidance work in junior and senior high schools. A Master's degree in Guidance is granted to students who complete this work satisfactorily. Full descriptions of courses may be found in the Graduate Bulletin.

Social Activities

A varied program of social activities is promoted by the college clubs, classes, personnel department, and general staff. Each activity is approved and directed by the Dean of Women because of its social and recreation value. A few of the activities which are normally traditional are listed below.

Three all-college dances are sponsored by the Student Government Association each year and two by each class. The sophomores give a dance for the freshmen at the end of Orientation Week. Dances are also sponsored by dormitories as well as several other organizations.

The various clubs and associations hold banquets each year. The Thanks-giving and Christmas dinners in the dormitories are festive occasions.

Athletic events for men include scheduled games and matches with outside teams. Sport days are sponsored by the Women's Athletic Association.

The musical organizations present several programs each year, including the Christmas and Easter programs and the annual concerts during the spring.

The Dance Club is composed of a group interested in the dance as an art form. Participation is based upon selection of candidates by members after a special tryout. Members work on techniques which give control and suppleness so that their bodies may be used as instruments with which to express ideas and emotions in the creating of dances. During the year the Club sponsors events

such as a visiting professional group or artist, a symposium, lecture-demonstrations, and concerts on campus and elsewhere by club members.

There are many other events occurring from time to time, such as the spring festival of the language department, the Mardi Gras of the language department, and the special events of Commencement Week.

Scholastic Adjustments

Lack of scholastic adjustment may be due to physical health or emotional instability, and in either case should be understood and remedied. There may be other cases where individual students need scholastic guidance. It is not uncommon for students' subject-matter interests to change and for students to require transferral from one course to another or from one department to another. Furthermore, students are sometimes troubled by their ratings and schedules, and frequently the matter of study habits demands careful analysis and directed training. Various types of adjustments may be made in classroom situations by providing a better understanding of troublesome problems and thereby relieving tension. All problems of adjustment are considered in the spirit of helpfulness.

Financial Adjustments

The College is not prepared to render financial help in every case where help is needed. Yet it is in a position to assist many of those who are particularly deserving. Assistance is commonly rendered through loans and student employment.

Work Scholarship Funds

The State offers deserving students the opportunity to do socially desirable work of such a nature as may be provided in the college library, laboratories, and offices. These scholarships cover tuition.

Chapin Memorial Fund

This fund was established by the Alumni Association in honor of the late Dr. Charles Sumner Chapin, Principal of Montclair State Normal School. It is incorporated under the direction of a board of trustees. Loans are made principally to upper class students and always on the basis of the candidate's personal and scholastic fitness for the profession of teaching, as well as the candidate's financial need.

Applications for loans are made through the office of the Director of Personnel. Each loan must be secured by at least one property owner. The total amount of the fund is approximately \$12,500.

Scholarships

A few scholarships are granted to students of marked personal fitness and of accomplishments in special fields. Candidates for scholarships are recommended by their high-school principals.

John C. Stone Scholarship

This fund was established by the Alumni Association in memory of the late Professor John C. Stone. It amounts to \$1,600, and the proceeds are to be used as a scholarship for mathematics majors.

Margarget B. Holz Foundation

This fund was established by college students who have studied abroad for at least one year under the direction of the Foreign Language Department. The exchange student movement at Montclair was conceived and developed by the late Professor Margaret B. Holz, and it was in her memory that the fund of \$3,000 was created. The proceeds of the fund provide financial assistance to those members of the Modern Foreign Language Department who need financial aid in order to study abroad.

Field Studies Fund

This fund was established by Dr. Harold S. Sloan, a professor at the College from September 1929 to June 1936. The interest on an investment of \$10,000 is used for the development of the work of the Bureau of Field Studies.

State Scholarships

The state legislature awards annually to the State Teachers Colleges a number of scholarships not to exceed ten per cent of the number of beginning students.

Those students who are applying for admission to a State Teachers College and who wish to compete for a scholarship are invited to write to the President of the College to which they are applying for admission and request a scholarship application blank.

Edward Russ Scholarship Fund

This fund was established from the residue of the estate of the late Edward Russ. It amounts to \$20,000, the proceeds of which are used to assist deserving students who, through scholarship and personal fitness, offer assurance that they will make especially valuable contributions to the profession of teaching.

Clarence O. S. Howe Memorial Organ Fund

This fund provides two organ scholarships a year.

Grace M. Freeman Grants

These grants provide scholarships for highly deserving students in financial need.

Student Employment

The financial condition in many homes has changed considerably in the past few years. The College wishes to cooperate with worthy students who earnestly desire to follow through the four-year college course. This is often done by affording to students an opportunity to participate in various types of work on campus or to render service in private homes near the campus. Opportunities for such work are arranged through the offices of the Dean of Women and the Director of Personnel and Guidance.

Part III

THE COLLEGE CURRICULA

FUNDAMENTAL PRINCIPLES

The content, organization, and instructional procedures of the various curricula and courses are guided by the following principles:

- (1) The definite objective of a professional college makes certain requirements necessary, yet in so far as practicable the special interests of individual students should be recognized.
- (2) After the major and minor fields of specialization have been chosen, there should be comparatively little opportunity for free elections.
- (3) Each curriculum should provide a basis of required background courses and professional activities.
- (4) Each curriculum should provide for an understanding of the aims and organization of secondary education and for guidance and skill in selecting, organizing, and presenting instructional materials.
- (5) Each curriculum designed to prepare secondary-school teachers should make adequate provision for specialization.
- (6) Subject-matter should be treated professionally.
- (7) The courses and activities in a given curriculum should be sequential and integrated.
- (8) Courses should be broadly humanizing and should be related to what takes place in society and what is done in school.
- (9) The demonstration school should be the laboratory and integrating center of all courses and all curricula.
- (10) General educational theories and techniques should be exemplified in regular class instruction and frequently demonstrated in the laboratory school.
- (11) The relative value of the elements of the professional instruction should be checked by the strengths and weaknesses of the college product.
- (12) The curricula and courses of the College are the servants of a changing society, and therefore should be subject to continual adjustment.

The above principles are recognized by the staff as basic to the organization and development of the college curricula. They have directed and unified the work of the staff in its selection, organization, and treatment of curricular materials.

Students should recognize that a professional school has by its very nature, definite aims and objectives, and therefore practical reasons for preparing and requiring certain fundamental types of work. Such requirements are characteristic of professional schools generally. It is, however, the purpose of the College to recognize the interests and aptitudes of individual students and to be guided by these, provided that they do not lead to haphazard and unsystematic selections and procedures.

The instructional work of each curriculum is divided into three areas: (1) professional background; (2) professional integration; (3) professional subject matter. Each of these areas is described in the paragraphs which follow.

GENERAL ORGANIZATION OF INSTRUCTION

The organization of the College for instructional purposes is in accordance with the Principles numbered 1 to 11, as stated on the first pages of Part I of this catalog.

Relations to the Schools of the State

The college staff recognizes its relationship to the junior and senior high schools which it serves. The following contacts are maintained:

Close relationships are maintained with the State Department of Education through its Commissioner of Education and Assistant Commissioners.

The State Director of Teacher Education is in continual contact with the officers and directors of secondary education and with the College.

Frequent conferences on problems of secondary education are held on the campus. a. General conferences with city and county superintendents, supervising principals, and junior and senior high-school principals.

 Conferences with high-school executives devoted to special problems in the secondary fields.

c. Department conferences with heads of departments and teachers in the respective fields.

The College collects and analyzes curricula which are administered in the various high schools in the State.

The College has contacts with various junior and senior high schools through its supervisors of student-teaching and through the representatives of various subject-matter departments.

The Collège contacts the secondary schools and becomes familiar with their needs through its Placement Bureau and follow-up service.

The College cooperates with various secondary school officials and agencies in making research studies.

Principals, heads of departments, and teachers visit college classes and classes in the College High School from time to time.

FIELDS OF INSTRUCTION

The general instructional division of the College has three well-established functions. The first is to provide each student with a rich background. The second it is to provide professional subject-matter which includes ample margins of scholarship. The third is to provide professional theories and techniques and their application in student-teaching. Each of these three departments of the instructional division is discussed briefly in the following paragraphs.

Professional-Cultural Background

Every teacher who is to recognize and use the many-sided interests of a normal high school pupil must have a broad philosophy of life and a human interest in the life-experiences of youth in present-day society. Furthermore, every teacher who is to specialize in a field of knowledge which is somewhat narrow should be familiar with the interests, activities, and problems of present-day society as they are related to the subject-matter of his field of specialization. In order to meet these professional needs the College requires that every student, regardless of major and minor fields of specialization, do two things. First, he must become familiar with the social, political, economic, industrial, scientific, religious, literary, and aesthetic phases of life. Second, this background of culture

should be a body of related and well-assimilated knowledge rather than a collection of isolated parts. In other words, the interdependence of each of the phases of life mentioned above should be recognized and made meaningful.

The professional-cultural background courses comprise nearly one-third of the total college requirements for graduation. The specific requirements may be found in Part III under the heading of Professional Background Requirements.

Professional Subject-Matter

Professional subject-matter refers particularly to courses in the student's major and minor fields of specialization. It is thought of as departmental specialization built upon the related and fundamental body of knowledge which has been called professional background.

Every high school teacher should have thorough command of the subjectmatter in his special fields of instruction. This subject-matter does not include merely the bare requirements for the prescribed work in high schools. It does include such scholarship as will stimulate a true intellectual curiosity and provide for rich margins of knowledge.

Each student is required to complete a minimum of thirty semester-hours in his major field of interest in addition to the units required of all students and eighteen semester-hours in his minor field of interest. It has been the policy of the College since its organization in 1927 to recognize that its professional duty as a teachers college is to treat its subject-matter professionally, that is, to provide not only for an academic knowledge of subject-matter but also a teaching knowledge of that same subject-matter. A teaching knowledge requires an understanding of the way in which subject-matter is to be organized for teaching purposes and how it may be presented to the best advantage under varying conditions to high-school students.

Department of Professional Integration

The prospective secondary-school teacher should have not only an adequate cultural background and a thorough teaching knowledge of subject-matter in his special fields, but also a teaching knowledge of adolescent pupils and an understanding both of the processes involved in their instruction and of the part played by education in contemporary society.

The fact that the techniques used in the professional treatment of subject-matter cannot be divorced from the subject-matter itself makes it apparent that there must be a close relationship between the subject-matter departments and the department responsible for training in the theories and methods of education. (See also Part III for descriptions of courses.)

In addition to providing the Placement Bureau (described on page 52) this department has various functions. It offers courses in the psychology and philosophy of secondary education, in various techniques and methods of teaching, and in the principles of administration of both elementary and secondary schools. Fourteen semester-hours of work in this department are required of

each student, besides ten semester-hours for student teaching, two semester-hours for health education, and three semester-hours for a special methods course in the student's major field.

In the present emergency due to increasing enrollments and teacher shortages in the elementary schools, additional courses in elementary-school teaching are required of most students. These courses lead toward a limited elementary-school teaching certificate. They serve two purposes: to prepare the student for possible elementary-school teaching in the present emergency, and to give him a fuller understanding of both the background of high school pupils and the work of the entire public-school system.

Observation of classes in the College High School is required of students throughout the four years of their college course, beginning with directed observation in the freshman year, and ending with an intensive program of observations in the student's major subject, closely coordinated with the course in methods of teaching his major subject.

Twelve weeks of student-teaching in a public school, eight weeks in a high school and four weeks in an elementary school, are required of each student. This experience is planned and arranged by the Department of Professional Integration and supervised by members of the department and of the student's department of major interest.

Summary of Course Requirements for the Bachelor of Arts Degree

I	PROFESSIONAL BACKGROUND COURSES	Semester-Hours
	Soc. St. 100A and 100B Civilization and Citizenship	6
	Soc. St. 200A Contemporary Economic Life	2
	Soc. St. 200B Contemporary Political Life	2
	Soc. St. 200C Contemporary Social Life	2
	Eng. 100A and 100B World Literature	6
	Eng. 200A Composition	3
	*Eng. 200B Fundamentals of Speech	
	Lang. 300 Foundations of Language	
	Art 100 History and Appreciation of Art	
	Music 100 Music Appreciation	
	‡Either Sci. 100A Survey of Physical Science	4
	or Sci. 100B Survey of Biology	2
	Sci. 100C The Earth Sciences	
	Health Ed. 100 Healthful Living	
	§Math. 400 Educational Statistics	- 1-
	giviani. 400 Educational Statistics	
II	Professional Integration Courses	
	Int. 100 Mental Hygiene and Personal Adjustment	2
	Int. 200A Child Growth and Development	2
	Int. 200B Adolescent Psychology and Mental Hygiene	
	Int. 300A Aims and Organization of Secondary Education	2
	Int. 300B Principles and Techniques of Teaching in the	
	Secondary School	
	Int. 400A Principles and Philosophy of Secondary Education	
	Int. 400B Practicum in Secondary Education	2 14
	*C	

^{*}Speech majors and minors take English 103 in lieu of English 200B. †Science majors take Mathematics 101 in lieu of either Sci. 100A or Sci. 100B. ||Mathematics majors take Mathematics 308 in lieu of Math. 300. \$Mathematics majors take Mathematics 408 in lieu of Math. 400.

III	SUPERVISED STUDENT TEACHING	10	10
IV	COURSE REQUIREMENTS IN MAJOR SUBJECT FIELD Minimum Number of Semester-Hours in Major Field (Some departmental requirements are higher. See the departmental statements for specific requirements.)	30	
	A methods course in major field	3	33
V	Course Requirements in Minor Subject Field		
	Minimum Number of Semester-Hours in Minor Field	18	18
VI	ELECTIVES	13	13
VII	PHYSICAL EDUCATION		
	Two hours a week of gymnasium work for four semesters	0	0
			128

THE LABORATORY SCHOOL

The College High School

The College High School occupies a building equipped for the regular classes and activities of a six-year high school. It is operated in conjunction with the program of the College for the purpose of providing opportunities for demonstration, observation, and experimentation as a part of the professional education and training of teachers for New Jersey secondary schools.

The school is organized and administered by a director, and the classes are taught by members of the college faculty. The chairmen of the subject-matter departments in the college are also the chairmen of the respective departments in the high school. Many of the members of the college faculty who teach in the high school have the dual assignment of teaching instructional methods to college students and of demonstrating the use of proposed techniques through the medium of the high-school classes. Observation of the demonstration teaching provided by the college faculty is required of all college students and is planned and directed by those staff members who teach instructional methods to the college students.

Among the other educational provisions made available to prospective teachers through the facilities of the laboratory school are the following:

- Opportunity is provided for the continuous observation of superior teaching in which educational theories, principles, and policies are integrated with practice in the classroom.
- 2. Theories, methods, and materials are tested under actual teaching conditions.
- 3. Experimentation is carried on for the purpose of improving methods of teaching and of adjusting secondary-school procedures to social change.
- Prospective teachers are able to observe and study adolescent children as they
 work in classroom situations.
- College teachers who are responsible for the professional preparation of secondary-school teachers are able to maintain contact with classroom problems in a secondary school.
- 6. Prospective teachers are given an opportunity to observe and to understand better the responsibilities of a teacher in a real school situation.

CREDITS AND STANDARDS

Credits

The College is organized on the semester basis. A semester-hour is to be interpreted as work done in the classroom for one hour a week during a period of eighteen weeks. The average student load for any one semester is sixteen semester-hours of prepared work a week. Thirty-two semester-hour credits should be earned during each college year. One hundred and twenty-eight semester-hour credits are required for graduation. Permission to carry more than the customary amount of work a week is granted only to those who have demonstrated marked ability. It is definitely understood that students are retained in the College only so long as they do satisfactory work.

Rating System

Marks indicating degrees of achievement in the various courses are given in letters, A, B, C, D, and F.

A-Excellent

B--Good

C-Fair

D-Poor

F-Failure

Inc.-Incomplete work

Wd.—Withdrawal from the class

Where a student has had an unavoidable absence, or for reasons approved by the instructor, a course may be marked "Incomplete" at the end of a semester. This mark must be removed by a final grade within six weeks, or the course cannot be credited and the mark becomes "F."

Degree and Certificate

After satisfactory completion of all requirements for graduation the degree of Bachelor of Arts is granted.

Those who complete requirements for a degree at the New Jersey State Teachers College at Montclair also qualify for a Standard Certificate valid in New Jersey public schools. The Montclair graduate is eligible for a Limited Secondary Certificate. Those graduates who complete courses prescribed by the State Board of Education are also eligible for a Limited Elementary Certificate.

WEIGHTED SCORES

For purposes of striking averages and obtaining rankings, marks receive the following weighted scores for a semester-hour: A, +4; B, +3; C, +2; D, +1; F, -1.

Scholastic Honors

Students graduating with point averages of 3.45 or better for all undergraduate courses completed at Montclair are recognized as honor students with the following designations:

Average of 3.45 — 3.64—cum laude Average of 3.65 — 3.84—magna cum laude Average of 3.85 — 4.0 —summa cum laude

Requirements for Graduation and Bachelor of Arts Degree

A major requiring a minimum of thirty semester-hours.

A minor requiring a minimum of eighteen semester-hours.

Additional credits in required and elective work to total one hundred and twenty-eight semester-hours.

At least two years of work in physical education.

A minimum of two semesters of resident work.

A minimum of 150 clock-hours of student-teaching to satisfy the State requirement.

Scholastic Standards

In addition to the completion of such courses as may be prescribed, students must have an average weighted score per semester-hour of work taken in the College as follows:

a.	Students admitted as freshmen	2.0
Ь.	Students admitted as sophomores	2.13
C.	Students admitted as juniors and seniors	2.25

PROFESSIONAL BACKGROUND COURSES

The professional objectives of these cultural courses have been discussed in this bulletin. The courses included in this division are required of all students and amount to nearly one-third of the total semester-hour requirement for graduation.

A cultural background should be a broad well-unified body of knowledge. In accordance with the principle of integration, the greater part of the work in this department is organized into large units of instruction. For instance, *Civilization and Citizenship* is based upon present-day problems, and includes a carefully articulated study of the social, political, economic, industrial, religious, scientific, literary, and aesthetic phases of contemporary civilization. The problems of contemporary civilization are used as the fundamental motives for studying the history of civilization from the days of the Egyptians down to the present time. The study of the whole span of civilization is attempted for the

purpose of showing how other ages have met with similar problems and how through the ages these problems have developed. This unit has been organized by the Departments of Social Studies, English, Science, Geography, and Integration, and is given by these various departments working together. Throughout this course departmental boundaries and barriers are broken down, in order that related subject-matter may become a unified body of knowledge. Such an effort to bring subject-matter into its natural relationship should be beneficial to prospective teachers who have need for broad understandings, clear meanings, and balanced judgments.

A second large unit of work centers about the literary and aesthetic needs and interests of civilization.

It should be noted that the courses in *Civilization and Citizenship* and *World Literature* parallel each other and are closely articulated and integrated.

The other smaller units of work such as Foundations of Language and Survey of Science do not follow a chronological order with the same degree of precision. However, the development in these fields parallels the larger units in Social Studies and English.

GROUP 1. Social Studies

SOCIAL STUDIES 100A. Civilization and Citizenship

The major object of this course is to arouse in the student a vital awareness that all the varied fields of human knowledge which make up the college curriculum function in the social life—the civilization—of which we are all a part. A survey is made of great cultural epochs through which man has passed; the Egyptian, Greek, Roman, and Medieval. Their chief institutional problems—economic, political, family, religious, educational, aesthetic—are considered in the light of our own times. In this way a background is set up for the consideration of our modern world, and of the problems of today with which the course started.

Credit: 3 semester-hours

SOCIAL STUDIES 100B. Civilization and Citizenship

This course carries to completion the problems set up by the preceding course, but with the modern world as the main theme. A study is made of the transformation of a culture and of the changes brought about by the Renaissance, by the Protestant Reformation, by the Commercial Revolution, and, finally, by the Industrial Revolution and the emergence of the industrial society of our world today. It is intended that this course be a preparation for and provide a setting for the courses in contemporary problems given in the sophomore year.

Credit: 3 semester-hours

SOCIAL STUDIES 200A. Contemporary Economic Life

This course acquaints the student with the basic nature of economic life, points out the opposing economic doctrines in force in various parts of the world and investigates the functionings of economic life both here and abroad. Case studies from current newspapers and periodicals are made the basis of this course.

Credit: 2 semester-hours

SOCIAL STUDIES 200B. Contemporary Political Life

The emphasis in this course is placed upon current American national government and politics. It aims to give the student a firm grasp of the principles and problems relating to the citizen and the government (obligations and rights), the citizens and political machinery (suffrage and the party), the States and the United States (changing nature of the federal system), and the mechanism of government (executive, administrative, legislative, and judicial).

Credit: 2 semester-hours

SOCIAL STUDIES 200C. Contemporary Social Life

This course is designated to create in prospective teachers an awareness of the tensions in the community and their effects upon pupils and the school. The student is given guidance in dealing with social issues and in discovering the constructive community forces which may be used by teachers.

Credit: 2 semester-hours

GROUP II. Literature, Language, Art, and Music

There are six units required in this group. These units are concerned (1) with furnishing materials of background and critical principles that insure a knowledge of the great masters of the literature of the world, and appreciation of the literary forms which they created, and a feeling for the best in modern life and thought as expressed in literature, and (2) with developing the power of communication in speech and writing.

ENGLISH 100A and 100B. World Literature: Its Forms and Its Masters

The purpose of these courses is to acquaint students with the great literature of the western world. This is done by supplementing the cultural-epochs approach of the *Civilization and Citizenship, Music Appreciation*, and *Art Appreciation* courses. The great literature of the western world receives major attention: Hebrew, Greek, Roman, Medieval, and Renaissance. As discussion permits, excursions are made into the literature of other cultures: Egyptian, Arabian, Indian, and Chinese. Parallels are constantly drawn between the past and the present in the literatures of Europe and America.

Credit: 3 semester-hours each

ENGLISH 200A. Composition

This course is designed to help the student improve his ability in writing so that he may understand and fulfill the requirements of the College in the organization and presentation of written materials. Exposition is stressed in order to provide practice in the fundamentals of effective organization. Outlining, handling of research and source materials, and general organization of term papers are introduced. An approved handbook of college level serves as a basis for the mechanics of the course.

Credit: 3 semester-hours

ENGLISH 200B. Fundamentals of Speech

This basic course is designed to help the prospective teacher to improve his ability in speaking. Effective voice production and clear, pleasing diction are developed through speech activities. The work of the course is adapted to the individual needs of the students as revealed by phonograph recordings and diagnostic tests. The work may include prescribed additional practice in the Speech Laboratory. Failure to achieve an acceptable standard of performance results in the withholding of credit until the student demonstrates satisfactory achievement.

Credit: 3 semester-hours

LANGUAGE 300. Foundations of Language

The purpose of this course is to give every student, as a prospective high school teacher, (1) a survey of the background, growth, and structure of the English language from its Indo-European origin to modern times, (2) an introduction to the science of linguistics, (3) an appreciation of several foreign language patterns, and (4) a rich fund of information in the field of general language.

Credit: 2 semester-hours

ART 100. History and Appreciation of Art

The aim of this course is twofold: first, to study the art of each epoch as the expression of its typical beliefs and attitudes; and second, to enable the student to utilize his capacity for sensitive awareness and active response to visual experience in daily life as well as with formal media. In relating art and the spirit of each age, the work of the course is integrated with the study of historical epochs in the survey courses in *World Literature* and in *Civilization and Citizenship*. Laboratory exercises in creative art work are designed to give the student first-hand experience with the expressive means of the artist. Visits to the museums and galleries in the metropolitan area are part of the course work.

Credit: 1 semester-hour

MUSIC 100. Music Appreciation

This course helps the student to discover music for himself and to use it as a vital force in life enrichment. Emphasis is placed upon stimulating the enjoyment of music rather than building up a body of facts about it. By means of

performance by the instructor and students, and directed listening to recorded music and to the radio, the student is acquainted with masterpieces of music which should be the possession of every cultured person. This course meets two hours weekly and is credited on a laboratory basis.

Credit: 1 semester-hour

GROUP III. Science

As his cultural background work in science, the student surveys the earth sciences (100C), either physical science (100A), or biology (100B), and hygiene and health.

SCIENCE 100A. Survey of Physical Science

This course deals with the basic scientific discoveries which have created present-day activities in the fields of astronomy, atomic energy, and meteorology. The social, economic, and educational consequences of these discoveries and the industries growing out of them are treated in such detail as to be of service to prospective teachers of social studies, English, languages, and other high school subjects.

Credit: 4 semester-hours

SCIENCE 100B. Survey of Biology

The organization and behavior of plants and animals are treated in a manner devised to develop understanding of man's structure and behavior. Mechanisms of heredity and evolutionary change are considered. An understanding of how a balance may be achieved among living things is developed to show desirable land use and good agricultural and forest practices. Class lectures and discussions are supplemented with lantern slides, moving pictures, laboratory experiments, and field trips.

Credit: 4 semester-hours

SCIENCE 100C. The Earth Sciences

Land forms and water bodies are treated from the standpoint of origin and evolution, and, together with the atmosphere, are considered in relation to their influence upon life and activities. The laboratory work consists of the study of topographic maps, models, and other methods of illustration. This course affords excellent background for all courses in geography.

Credit: 2 semester-hours

HEALTH EDUCATION 100. Healthful Living

The purpose of this course is to aid the student in achieving and maintaining optimum health and to understand the principles on which it is founded. Among the topics covered are: prevention and treatment of diseases, grooming, nutrition and weight control, the effects of alcohol and narcotics, marriage and parenthood, and the community aspects of health.

Credit: 2 semester-hours

REQUIRED PHYSICAL EDUCATION—Men and Women

Two hours a week of physical education for two years are required of every student. These requirements must be completed in the freshman and sophomore years, except by special arrangement. As wide a variety as possible of team, dual, and individual sports is included in the program. Dancing is offered for women.

GROUP IV. Mathematics

MATHEMATICS 300. The Social and Commercial Uses of Mathematics

Some of the topics treated are: review of fundamental operations, approximate computation, use of slide rule and computing devices, scale drawing, percentage, simple and compound interest, consumer credit and installment buying, savings and investment, mortgages, taxation including the income tax, insurance, pensions and annuities, social security, cost of housing, and budgeting. Commercial, industrial, and consumer applications are stressed.

Credit: 2 semester-hours

MATHEMATICS 400. Educational Statistics

The aim of this course is to prepare the student (1) to comprehend and criticize articles of statistical nature in current educational literature; (2) to apply statistical methods in testing and rating pupils; (3) to carry on the simpler types of educational research. By analysis of real data from the secondary field, the student becomes familiar with the measures of central tendency and variability, short methods of computation, graphic representation of material, the properties of the normal curve, the elements of sampling theory, and linear correlation. Inasmuch as statistical methods in education are almost identical with those employed in the natural, physical, and social sciences, there is natural integration with these fields.

Credit: 2 semester-hours

GROUP V. Humanities

Students are given the opportunity to elect courses in the humanities in fields such as English, music, and language. The following courses do not belong to the major departments of the College, but are offered to enable students to broaden their outlook through art appreciation and studio work in the fine arts.

ART 406. Creative Arts Workshop

This course offers experience in painting, drawing, sculpture, ceramics, and print making for students who wish to employ the creative visual arts in the teaching of other subjects. No previous art training is required.

Credit: 2 semester-hours

ART 408. Creative Painting

This course gives the student an opportunity to use the materials of the painter for personal creative experience. Oils, water colors, and pastels are used.

The student is encouraged to work in landscape, figure, and free imaginative composition. No previous experience is necessary.

Credit: 2 semester-hours

ART 414. History of Chinese Art

In this course the developments and distinguishing characteristics of the major arts of China are traced by specialists and are surveyed from the point of view of their historical developments. An historical survey of the development of Chinese art from the dawn of civilization to the present day is made which includes the role played by foreign influences such as the spreading of Buddhism and the Chinese influence on other parts of the world. There are twenty-four hours of lectures in the morning and round-table discussion and library work in the afternoon. During the afternoon workshop period the technique of Chinese painting is demonstrated. Although there is no prerequisite for this course, it is suggested that those who enroll should have some knowledge of art or have taken Social Studies 499, China Workshop.

Credit: 3 semester-hours

ART 415. School Arts and Crafts with Native Materials

In this course the student gains an appreciation and understanding of art expression growing out of the immediate environment as he learns to work creatively with native materials. Useful and decorative articles are made from wood, fruit pits, seeds, grasses, reeds, and native clay. The use of natural dyes for coloring is demonstrated. The construction of teaching aids using simple, native materials is also shown. Flower and plant arrangements for room and table decoration in keeping with good conservation practices are presented.

Credit: 2 semester-hours

THE DEPARTMENT OF PROFESSIONAL INTEGRATION

Since the function of the College is educational, it is hardly justifiable to single out one department as the Department of Education. There is needed, however, a group of workers who will integrate the work of the entire College by coordinating all the professional aspects of teaching such as subject-matter, teaching techniques, observation, and student-teaching. This responsibility for the integration of all the college interests is delegated to the Department of Professional Integration. The agencies in this department which carry out this work are: the courses in Integration, the College High School, the student-teaching program, and the placement and professional adjustment services. The work of these agencies transcends all departmental lines; the special interests and functions of any one department contribute to the professional aims of the institution which are broader in scope and purpose than those of any of the subdivisions of the College.

Since the only purpose of the College is professional, departmental aims are identical or similar. Hence the aims of the Department of Professional Integra-

tion are not exclusively its own. Its chief and particular function, however, is to assist and to give leadership in the following ways:

- (1) It helps the prospective teacher to take an intelligent and active part in his own personal and professional orientation.
- (2) It arouses an awareness of the possibilities of the profession of teaching as an opportunity to invest one's interests and powers in promoting the social good.
- (3) It gives an understanding of both elementary-school and high-school students, their natures, interests, and needs.
- (4) It provides for a gradual induction into the profession of teaching by means of a carefully arranged sequence of education courses, by observation of and participation in school classwork.
- (5) It directs the student as he becomes an active and responsible teacher in the student-teaching program.
- (6) It provides an analysis of the student-teaching experiences.
- (7) It aids in coordinating the work of the college departments through its integrating functions.
- (8) It provides training which will aid the student in taking an active part in the extra-curricular life of the school and in community life.
- (9) It gives a forward look into the profession so that it shall not be regarded as a stepping stone, but as a vocation worthy of a life work.

The department not only promotes the professional aspect through its materials and organization, but supplements the work of professionalization of all the departments.

Organization and Activities

The required courses in professional integration have been designed to give a survey of the essentials of the professional aspects of teaching. Five points of view are emphasized: the sociological, the biological, the psychological, the pedagogical or technical, and the philosophical. Although in a given semester course only one or two of these fields receive special emphasis, the content is not limited to them. There is rather the attempt throughout to conduct an integrated treatment of professional problems.

Special attention has been given to the sequence of the required courses and to the units within courses. In so far as it is administratively possible and expedient, courses in education parallel those in other departments. In this way the various departmental courses reinforce and supplement each other.

In the organization of all courses the needs of society and the needs and interests of the students are considered. Content material is taught, not as detached from the student's every-day world, but as part of his professional life in pre-service training. Both logical and psychological organizations are utilized, the former for completeness and unity, the latter for vitality.

The work in psychology includes some opportunity for first-hand observation of children and adolescents in their homes, on the playground and in other out-of-school settings, and in school. The aim is to acquaint the student, through any means available, with stages in normal development from infancy through adolescence. An effort is made to build an understanding of what is involved in the psychological development of the individual and a basic understanding of the needs of children and adolescents together with some insight into the

resources through which these needs may be satisfied. Special emphasis is given to the particular problems encountered in school situations.

Observation and participation in the College High School occupy a large place in the courses in educational integration. It is through personal contact with actual school conditions that students are led to understand the meaning of educational theory. Observation is begun in the freshman year and continued throughout the four years. In the early years this work is elementary in nature; but as the student advances, more complex aspects of the problems of teaching are observed and analyzed. In the end he comes in contact with all phases of teaching. In the junior year some of the departments follow a form of participation in which students assist the instructors of the College High School in the classroom. All juniors also spend one week full time in an elementary school, observing and participating in the teaching.

Immediately preceding the work in student-teaching offered in the senior year, a course in the principles and philosophy of secondary education is given. The major purpose of this course is to study with the student those basic and fundamental principles that should guide our secondary schools. Each student is encouraged to work out his own philosophy of life and of education.

STUDENT-TEACHING

The plan of student-teaching which the College carries out is based upon the principle of internship. At the beginning of the second semester the seniors leave the campus and take up the work of teaching in the schools of New Jersey. Each student is assigned to an experienced public-school teacher, in both a secondary and an elementary school, under whose guidance he observes, participates, and teaches. He spends the first week in observation and participation, then gradually takes over teaching responsibilities—one class, then two, then three. For the last weeks of the period in each school he has full responsibility for certain classes. Homeroom guidance, club work, student council meetings, and all the extra-classroom activities which round out the program of the modern public school are a part of his privileges and responsibilities.

The student returns from this experience with a new point of view and a new spirit. He has actual knowledge of the responsibilities of the teacher; his perspective is broadened; he has begun the development of his teaching skills; and he has a new insight into the psychology of the growing child.

The student-teaching period is followed by six weeks on the campus of intensive study of the practical problems of teaching. The practice in teaching provides a background for the interpretation of educational theory.

Supervision of Student-Teaching

During the twelve weeks of practice the student is frequently visited at work by members of the college faculty—representatives of the subject-matter departments and the Department of Integration. Individual and group conferences, and other approved supervisory techniques are employed in the improvement of teaching ability.

At the half-way point in the practice period the students return to the campus for a day's conference. General discussion, group meetings, and individual consultation with the staff members afford an opportunity for clearing up problems and difficulties which the students have encountered in the field.

Placement and Professional Adjustment Service

Since the Department of Professional Integration is responsible for the administration of the student-teaching program, its close contact with the various public schools of the State makes it the logical department to direct the work of placement of graduates. The Placement Bureau serves two purposes: helping the graduates of the College to secure positions suitable to their training and abilities; and, by so doing, cooperating with school authorities who are seeking to fill teaching and administrative positions. Because of its relationship with the Department of Professional Integration, the Bureau is able to provide definite and reliable information relative to the training, experience, and personal fitness of candidates. It arranges for personal interviews and for observation of candidates in teaching situations.

Credentials for every graduate of the College are compiled from class records, reports on student-teaching, and from information secured by consultation with heads of departments, the Registrar, faculty counselors, supervisors of student-teaching, members of the personnel division, and others who may be informed as to special aptitudes and activities.

In order to fulfill its obligations to both employers and prospective teachers, the Bureau requests complete information about vacancies to be filled. It assumes important responsibilities to the teacher, to the individual school, and to public education as a whole.

Courses numbered INTEGRATION 100, 200A, 200B, 300A, 300B, 400A, 400B, and 403, are required of all students; courses numbered otherwise are elective.

THE FIRST YEAR

The course in the first year of College is especially designed to help the student gain insights into his own personality and to develop resources within himself which should be of value when he becomes involved primarily in attempts to understand and to help others. It stresses the mental hygiene aspects of personality and develops some of the basic concepts which are necessary for the beginner in the field of psychology.

INTEGRATION 100. Mental Hygiene and Personal Adjustment

The course in mental hygiene and personal adjustment offers an accumulation of suggestions from psychological, biological, sociological, and educational literature which the college student may use in building his personality with the facilities available on the campus. Problems of human relationships and general orientation in college and in life are discussed.

Credit: 2 semester-hours

THE SECOND YEAR

Psychological Aspects of Education

INTEGRATION 200A. Child Growth and Development

This course covers the essentials of growth and development from the psychological and the educational points of view. It includes all aspects and stages of development from early infancy to adolescence. Stress is placed on firsthand observations of children in home, school, and play situations and elsewhere. Evaluation of materials gathered through such observations furnishes part of the material for discussion.

Credit: 2 semester-hours

INTEGRATION 200B. Adolescent Psychology and Mental Hygiene

This course stresses: (1) the development and growth of the normal adolescent; (2) problems which are related to normal development as they are met in school and elsewhere; (3) problems which occur because of deviations in any aspect of development—physical, mental, emotional, social, moral; (4) some techniques for understanding and dealing with this age group.

Credit: 2 semester-hours

THE THIRD YEAR

Pedagogical and Technical Aspects of Education

The major purposes of the courses concerning the secondary school given in the junior year are: to acquaint the student with the factors that have influenced the evolution of the secondary school in America; to lead him to recognize its potentialities in developing a dynamic social order; and to help him to appreciate the part the teacher in this division of the school must have in realizing the ultimate goal of education. Basic issues common to contemporary life are examined to discover what the secondary school must do to meet the needs and requirements placed upon it.

In this division the practical phases of the secondary school are examined to give the student an understanding of its internal organization and of the specific part the teacher occupies in it. In the first semester the historical background of the development of secondary education in this country and European countries is studied. This is followed by a study of the modern high school with particular reference to the town and city schools of New Jersey. The second course deals with the principles and techniques of teaching. Observation occupies a vital place in these courses.

INTEGRATION 300A. Aims and Organization of Secondary Education

The content of this course may be summarized in the following topics: (1) nature and function of the American secondary school; (2) historical development of secondary education in the United States; (3) organization of

administrative units; (4) secondary education in other lands; (5) the students; (6) the program of studies and activities; (7) the staff; (8) buildings, grounds, and equipment; (9) cost and support of education; and (10) the secondary school as a social and economic instrument.

Credit: 2 semester-hours

INTEGRATION 300B. Principles and Techniques of Teaching in the Secondary School

The purpose of this course is to help each student: (1) to acquire a knowledge of general and specific techniques and the basic principles involved in their utilization; (2) to acquire initial skill in selecting and preparing materials and in manipulating tools and instruments which will be utilized in vitalizing instruction; (3) to study the problems and techniques of effective instructional planning. Activities include: reading and discussion of case studies and other professional literature dealing with current problems and practices, directed observation in the College High School, exploring courses of study, learning to operate and use various mechanical teaching aids, and preparing both a unit and a daily lesson plan.

Credit: 2 semester-hours

INTEGRATION 301. Training in the Use of Teaching Aids

The student is given general orientation in the field of instructional aids. He works in the New Tools for Learning Bureau, as an apprentice, and in this way receives intensive training in the use of all types of teaching aids. There is one scheduled class hour per week, and the student is expected to put in two additional hours each week in assigned work in the projection rooms or workshop. This course affords good preparation for positions requiring training in audio-visual techniques.

Credit: 2 semester-hours

INTEGRATION 302A. Television in Education Workshop, I

This is an experimental workshop course for students on the undergraduate level in which a study is made of the educational implications of television through the use of television studio equipment, utilizing the resources of all departments of the college, student potentialities, campus life, and the community. Actual training is given in the use of television equipment, planning, script writing, and programming in relation to classroom use on all grade levels in the schools. Trips are made to television laboratories and studios. Laboratory procedures are followed.

Credit: 2 semester-hours

INTEGRATION 302B. Television in Education Workshop, II

This is a continuation of Int. 302A, the experimental workshop course, and is designed for students on the undergraduate level who have had the basic foundations of television techniques. The course is devoted to an intensive study

of the educational implications of television through the evaluation of current commercial offerings and to the production of experimental educational programs in various subject matter areas. Laboratory procedures are followed, and students are expected to select an area for specialized work. Students are also given the opportunity to gain further experience in fundamental techniques by serving as assistants to the instructors in the basic course.

Credit: 2 semester-hours

THE FOURTH YEAR

Philosophical Aspects of Education

Students come to these courses with a background in their special fields of study, in psychology, and in techniques of teaching. The professional background courses have provided an opportunity to examine and appreciate the cultures of various civilizations. The purpose of the fourth-year courses is to unify these experiences and to help the students discover for themselves a working philosophy of life.

INTEGRATION 400A. Principles and Philosophy of Secondary Education

This course evaluates educational objectives, techniques, procedures, and organizations in relation to the needs and demands made upon the school by society and by the student. It aims to help the student develop an adequate philosophy of life and of education.

Credit: 2 semester-hours

INTEGRATION 403. Supervised Student Teaching

Every student graduating from the New Jersey State Teachers College at Montclair completes twelve weeks of student teaching in the schools of New Jersey. At the beginning of the second semester the seniors leave the campus and take up this important assignment. Guidance is given by a good teacher in the cooperating school, and by supervisors from the College who come to observe the work. A more complete description is given on page 51 of this catalog.

Credit: 10 semester-hours

INTEGRATION 400B. Practicum in Secondary Education

This course follows student-teaching. It makes use of the teaching problems encountered by the students in the preceding twelve weeks, as well as similar problems reported by students in former years. In the manner of the clinic, cases are analyzed and diagnosed, and solutions are worked out. Examples of extraordinarily effective teaching procedure are similarly discussed.

Credit: 2 semester-hours

OTHER COURSES IN EDUCATIONAL INTEGRATION

General Aspects of Education

The following courses are elective. They cover various phases of education and supplement the work already described. Electives are offered in the junior, senior, and graduate years only.

INTEGRATION 406. Educational Sociology

This course deals with the application of sociological principles to educational problems. The school is treated as a part of the community, and the various social forces that affect the school and its administration are considered. The following topics are included: family backgrounds, community organization, social breakdown, socialized classroom methods, and the social approach to individual behavior difficulties.

Credit: 2 semester-hours

INTEGRATION 407. Television in Education Workshop: Programming and Production

This is a laboratory course designed to develop the techniques, methods, standards, procedures, and criteria pertaining to the special place of television in education. Through the utilization of studio equipment together with the resources of all the academic departments of the college, student potentialities, campus life, and the community, students receive experience in planning, developing, and producing, television programs of educational value. Actual training is given in the use of standard television equipment on campus, and field trips are made to local television laboratories and studios.

Credit: 2 semester-hours

INTEGRATION 408. Selection and Utilization of Audio-Visual Materials

Sources, selection, and evaluation of audio-visual aids are studied in this course. Techniques in developing individual reference catalogs of audio-visual aids are stressed. The production of school-made aids is also an important aspect of the course. The use of the latest audio-visual equipment is demonstrated.

Credit: 2 semester-hours

INTEGRATION 409. Radio and Sound Equipment in the Classroom

This course trains teachers and school executives in the use of radio programs, amplifying systems, recording equipment, and record players. Actual practice is given in the use of these educational aids. Problems of script-writing, microphone and recording techniques, and program directing are considered. The class visits radio stations for equipment and program observation. Each student develops a teaching unit using radio or sound equipment to vary, vitalize, and improve educational practices.

rounge. Credit: 2 semester-hours

INTEGRATION 410. Teaching Materials Workshop

This course is for those persons who wish to study advanced problems in the utilization and administration of audio-visual materials. Individual research is stressed, and there is an opportunity to work out individual projects. Such problems as budget requirements, administrative set-up, establishment of film libraries, etc., are emphasized. It is assumed that the student will have taken Integration 408 or will have had the equivalent in practical experiences.

Credit: 2 semester-hours

INTEGRATION 430. Techniques for Improving Reading Abilities

This course deals with the diagnosis and remedial treatment of difficulties in reading. A study is made of the basic principles underlying desirable reading experiences and their application in guiding children to success in learning to read adequately.

Credit: 2 semester-hours

INTEGRATION 440. Camping Education

The purpose of this course is to familiarize the students with camping and outdoor education as educational methods utilized by the schools of America. The aims and methods of camping are studied, and consideration is given to the communities that have active camping and outdoor education programs in operation. The course also helps prepare the student for a position in summer camps. This course is usually given at the New Jersey State School of Conservation, Stokes State Forest.

Credit: 2 semester-hours

INTEGRATION 441. Conservation Education

The social, economic, and scientific implications of conservation are considered in this course. Discussion periods are interspersed with field trips to forest areas and demonstrations of conservation problems. Outside experts are employed to bring special contributions in their fields. Visual aids are used extensively in this course. This course is usually given at the New Jersey State School of Conservation, Stokes State Forest.

Credit: 2 semester-hours

INTEGRATION 442. Practicum in Camp Leadership

In this course the student has an opportunity to learn the techniques of camp leadership through practical experience, guided group study, and discussion. The practical experience comes through serving as a camp counselor in an actual camp situation. During this practical experience there are regular discussion sessions and assigned readings which help the student to gain a background of knowledge to help deal with the practical problems as they arise.

Credit: 2 semester-b; and

INTEGRATION 443. Practicum in Camping Education and Administration

This course is designed to provide practical experience in the identification and solution of problems arising in camp administration. Among the phases considered are discussion of current practices at both private and institutional camps, interpretation of educational philosophies and objectives as they relate to camping, finances, personnel selection, waterfront organization, food purchasing, staff supervision, sanitation, health and safety, camp management, records and reports, insurance, kitchen management, maintenance, and other phases of camp administration. Practical application is provided through the techniques used in the children's demonstration camp.

Prerequisite: Integration 440, Camping Education, or the equivalent

Credit: 3 semester-hours

INTEGRATION 444. Practicum in Conservation Education

This course is designed to provide teachers and supervisors with a background of experience and knowledge which will enable them to organize and to conduct conservation education programs in their own communities. Using an extensive library of conservation education material, students formulate teaching units, lists of teaching aids, and projects suitable for use in their own communities. Participation in conservation projects with the children in the demonstration camp furnishes a practical background for research and discussion.

Prerequisite: Integration 441, Conservation Education, or Science 412, Field Studies in Science: Biological, or Science 413, Field Studies in Science: Physical, or the equivalent

Credit: 3 semester-hours

INTEGRATION E460. Public School Program of Studies

This title is given to a group of courses designed to meet requests from public school systems desiring help in curriculum reconstruction. Each of the parts of this general course is given on a cooperative intercollege basis, and taught by specialists in the various fields selected from the faculties of the cooperating State Teachers Colleges. Certificates of credit are issued by the college sponsoring the work.

Part I. 460A—Principles of Curriculum Revision

Part II. 460B—Workshop in Curriculum Revision

Part III. 460C—Organization and Evaluation of Curricula

Part IV. 460D—The Social Studies Program of Studies

Part V. 460E—The Language Arts Program of Studies

Part VI. 460F—The Science Program of Studies

Part VII. 460G-Workshop in Materials and Methods of Science Education

Part VIII. 460H—The Mathematics Program of Studies

These cooperative intercollege courses are provided only when the requests

from the public school authorities of the county, municipality, or community are such as to require their use. No undergraduate may elect these courses unless he is actively engaged in teaching.

Credit for each part: 2 semester-hours

ELEMENTARY EDUCATION COURSES

Although the New Jersey State Teachers College at Montclair is engaged primarily in preparing secondary-school teachers, during the present shortage of teachers in the elementary schools it is deemed expedient to offer courses in the field of elementary education for the undergraduates of the college leading toward certification to teach in these schools.

INTEGRATION 472. Elementary School Curriculum

This course acquaints the College student with the subject-matter of the elementary school curriculum for grades 3-6 inclusive. In addition, the following are studied: (1) correlation among subjects, (2) the appraisal and use of textbooks, (3) the use of visual aids, (4) the methods adapted to each subject, and (5) use of course of study materials.

Credit: 2 semester-hours

INTEGRATION 473. Elementary School Language Arts

This course gives an overview of modern practices that are used in teaching reading, creative writing, speaking, spelling, and handwriting in the elementary grades. Students are helped to recognize and to make provision for readiness for learning in these areas, to learn or devise various techniques that will meet the needs of different children and situations, and to evaluate, select, and create suitable materials to be used at various maturity levels. Special emphasis is placed on the functional use of the language arts in the total curriculum and life of the elementary-school child.

Credit: 2 semester-hours

INTEGRATION 474. Elementary School Arts and Crafts

This course provides a wide range of creative manipulative experience with the materials, tools, and techniques of art work in the elementary school and an insight into significant art work of children of various age levels. Work is done in crayon, paint, chalk, clay, wood, papier-mache, finger paints, and other easily accessible materials. The work of the course includes simple weaving, block prints, murals, and the making of puppets. Attention throughout is directed toward an insight into the significance of art work and of manipulative experience as a medium of expression and a means of growth for the child.

Credit: 2 semester-hours

INTEGRATION 475A. Fundamentals of Elementary School Music

The elements of music, including notation, the formation of scales and various modes, key and clef signatures, Italian musical terms, abbreviations, rhythm, and

intervals are included in this course. The student should acquire the ability to write a simple melody from dictation and to read at sight any part in a simple three-part selection in a musician-like manner. Ability to carry a tune is necessary for success in this course.

Credit: 2 semester-hours

INTEGRATION 475B. Teaching Elementary School Music

This course is designed for students who are either music majors or music minors or who have an acceptable background in music. It deals primarily with the materials needed in elementary school music and applies the skills of persons who know music in the teaching of these materials. Students who are not accomplished in the musical field should enroll for Integration 475A as a prerequisite for this course.

Credit: 2 semester-hours

INTEGRATION 476. Elementary School Health and Physical Education

The purpose of this course is to induct the prospective elementary classroom teacher into the field of health and physical education. Such phases as state courses of study, selection and organization of materials, grading, class organization, and others are discussed. To give the student a more functional approach, the programs of surrounding communities are studied.

Credit: 2 semester-hours

INTEGRATION 477. Elementary School Mathematics

This course includes a study of the development of the number concept in young children, the problem of number readiness, and an analysis of the various number skills. Consideration is given to the development of methods of presenting the units of elementary mathematics to children. Emphasis is placed on the meaningful use of the fundamental operations with integers, fractions, decimals, and problem solving. Experience is given to students in effective methods of lesson planning, testing, and diagnostic and remedial work.

Credit: 2 semester-hours

INTEGRATION 478. Elementary School Science

This course is based upon the assumption that science teaching in the elementary school should include scientific inquiry at the child's level as well as scientific information. Specific methods and materials are developed to meet these purposes. Emphasis is placed upon using the school community, learning through activity, and integrating science with other subject-matter areas.

Credit: 2 semester-hours

INTEGRATION 479. Elementary School Social Studies

This course is designed to familiarize the student with the materials and methods for teaching man's relation to his environment and other human beings in the elementary grades. The integration of the various phases of social living

with other subjects, grade placement of subject-matter, the source and use of visual aids, and student projects are all stressed.

Credit: 2 semester-hours

INTEGRATION 480. Field Science for Elementary Teachers

Working in a natural setting, rather than an artificial laboratory, this course stresses firsthand experience with natural phenomena and suggests what can be done to convey an understanding of these things to the elementary-school student. In developing an understanding of natural resources consideration is given to such areas as rocks and minerals, plant and animal life, astronomy, weather, and all outdoor phenomena, both physical and biological. If desired, collections are made under supervision, and some latitude is provided for individual specialization in some phase of field science. The student needs no formal scientific background for this course. Methods of teaching on the elementary-school level as well as subject-matter content are included. Simple demonstrations, experiments, collections, acquisition of free and inexpensive materials, reference publications, and the most recent methods and trends in field-trip procedure are considered.

Credit: 2 semester-hours

PROFESSIONAL SUBJECT-MATTER COURSES

Fields of Specialization

Professional subject-matter courses offer opportunities for students to major in the Departments of Business Education, English, Languages, Mathematics, Music, Science, Social Studies, and Speech, and to minor in the fields of Accounting and Business Practice, Biological Science, Physical Science, English, Geography, History, Languages, Mathematics, Music, Physical Education, Political Science and Economics, Social Business Studies, and Speech. The minimum requirement for a major is thirty semester-hours. The minimum requirement for a minor is eighteen semester-hours. Electives may be used outside the major and minor fields of interest, thereby increasing the areas of certification.

THE DEPARTMENT OF BUSINESS EDUCATION

In the past, the training of a business education teacher included training in the traditional areas of bookkeeping and accounting, secretarial studies, and certain social-business studies. More recently, the broad field of commercial or business education has embraced in addition to the traditional areas the fields of office machines and clerical practice, as well as training in merchandising, salesmanship, and other distributive-education courses. In view of these expanded fields of activity, it has been generally accepted that the training of a business education teacher might be limited to one or two of these specialized fields. The Department of Business Education, following this philosophy, aims

to train teachers for the junior and senior high schools in the fields of bookkeeping and accounting, business practice, and social business (including some offerings in merchandising, salesmanship, and other distributive-education courses). This gives the prospective business education teacher the opportunity to obtain a more complete specialized training within the broader field of business education.

The demand for the practical work of business education on the high-school level has always been large. Many high-school students are preparing to enter business or industry, and a large percentage of them do enter business and industry with the initial training the high school can give them. As a result, there is a demand for well-prepared business education teachers or for teachers who are equipped to teach combinations of courses in the field of business education and in other fields of secondary education.

The Department of Business Education offers a major in accounting and business practice and a minor in social business studies. In addition, it offers to students majoring in other subjects a minor in either accounting and business practice or social business studies or both. The sequence of the required and elective work of the Department has been carefully planned.

The elective courses offer additional background and supplementary materials of value to the teacher.

The classroom work of every course in the Department is outlined with two definite objectives in mind: to provide the student with a thorough knowledge of subject-matter, and to provide information and materials for teaching the subject-matter to high school students.

The following course requirements constitute the major in accounting and business practice:

			Semester-hours
B.E.	201A.	Business Law for Accountants	. 2
B.E.	201B.	Business Organization and Management	. 2
B.E.	202.	Business Mathematics	. 4
B.E.	301.	Bookkeeping and Accounting	. 4
B.E.	302.	Principles of Accounting	. 4
B.E.	404.	Business Economics	
B.E.	408.	Business Finance	
B.E.	409.	Money and Banking	. 2
B.E.	410.	Cost Accounting	. 4
B.E.	413.	Business Statistics	
B.E.	416.	Accounting Problems	. 2
			30

The following course requirements constitute the minor in social business studies:

B.E.		Introduction to Business	
B.E.	102.	Business Law	4
B.E.			3
* Geog.	303.	Regional Commercial Geography of the Americas	
Electiv	ves in	Business Education	4

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^{*}Geog. 302 will be accepted in lieu of this requirement.

The above electives must be chosen from the following:

		Marketing	
		Advertising	
B.E.	407A.	Consumer Education I	2
B.E.	407B.	Consumer Education II	2
B.E.	414.	Merchandising	2

For a minor in accounting and business practice, the following courses are required: Business Education 202, 301, 302, 410, and 416.

Both the major and the accounting and business practice minor require ten weeks (400 hours) of practical business experience for certification. A special form for recording this experience should be obtained from the Business Education Department.

Also required for majors in business education are seventy-two observations of classroom teaching. The details concerning these observations are explained on a separate assignment sheet furnished by the Department.

For a minor in social-business, the following courses are required: Business Education 101, 102, 402, 407A, either 405 or 406, and Geography 303.

Interesting extra-curricular programs and opportunities for leadership are provided by the Department. Epsilon Mu Epsilon is the general business education club with membership open to all majors and minors. This is the larger organization which carries on a dual group of informational and social activities. The Montclair Chapter, Beta Sigma, of Pi Omega Pi, the National Honorary Business Education Society, invites students to membership on the basis of scholarship and leadership. The aims and programs of this organization are such that membership is a coveted honor and privilege.

BUSINESS EDUCATION 101. Introduction to Business

This introductory business course furnishes a background of material helpful in the other business courses that follow. It also presents basic materials needed from the teacher's point of view in the teaching of junior business training or general business on the high school or junior high school level. Such topics as the functions of business, bank services, credit, investments, insurance, taxation, and prices are considered.

Credit: 4 semester-hours

BUSINESS EDUCATION 102. Business Law I-II

The object of this course is to give the student an understanding of the legal rights and obligations governing and regulating social conduct. It deals particularly with the rights and duties which arise in the transaction of business. Some law topics considered are: court systems (including New Jersey), contracts, agency, employer-employee relationships, negotiable instruments, bailor and bailee, and carriers and shippers.

Credit: 4 semester-hours

BUSINESS EDUCATION 201A. Business Law for Accountants

This is a continuation of course 102, but course 102 is not a prerequisite. Law topics treated are: sales, partnerships, property, deeds, mortgages, landlord and tenant, and torts.

Credit: 2 semester-hours

BUSINESS EDUCATION 201B. Business Organization and Management

This course provides an opportunity to study the various types of business organization and some of the problems encountered in the establishment and operation of a business. These business problems deal with such matters as location, housing, equipment, arrangement and layout, internal organization, purchasing, shipping, personnel, and manufacturing.

Credit: 2 semester-hours

BUSINESS EDUCATION 202. Business Mathematics

This is a course designed to provide a background for the teaching and study of bookkeeping and accounting as well as commercial arithmetic in the junior high and secondary schools. The fundamental arithmetical processes are studied from the standpoint of their application to the needs of business and the consumer. Such topics as the Federal Income Tax, selling and billing, discounts, markups, financial statements, turnover, depreciation, pay-rolls, interest, insurance, and stocks and bonds are treated.

Credit: 4 semester-hours

BUSINESS EDUCATION 301. Bookkeeping and Accounting

This is a fundamental treatment of the subject and so planned that it gives the student an elementary understanding of the subject from a personal-use as well as a vocational standpoint. It deals with the fundamental theory of debit and credit, journalizing, posting, trial balance, adjustments, and the preparation of the financial statements as applied to the sole proprietorship form of organization.

Credit: 4 semester-hours

BUSINESS EDUCATION 302. Principles of Accounting

This advanced course in accounting deals with all phases of partnership and corporation accounting: manufacturing, inventories, consignments, installments, analysis of accounts, and the analysis and interpretation of the financial statements.

Prerequisite: Business Education 301

Credit: 4 semester-hours

BUSINESS EDUCATION 401. The Teaching of Business Education

In this course a study is made of the history and development of business education, aims or objectives, human learning processes, lesson plans, teaching

procedure, tests and measurements, and special helps for the teachers of business education. Consideration is given to the current trend in teaching in these fields with emphasis on the viewpoint of the consumer as well as the social and vocational objectives.

Prerequisites: BUSINESS EDUCATION 301 and 302 or the equivalent

Credit: 3 semester-hours

BUSINESS EDUCATION 402. Salesmanship

The principles of salesmanship in all types of selling activities are discussed. They are amplified and strengthened by individual selling demonstrations which require intensive study of the product to be sold in the demonstration and careful analysis of the desirable techniques for its sale. Visual aids and talks by salesmen, sales managers, and retail training directors add interest and purposefulness to the course.

Credit: 3 semester-hours

BUSINESS EDUCATION 404. Business Economics

This course deals with the business aspects of economics as related to immediate and long range post-war problems; operation and government control of public utilities; taxation, government finance, and labor and management problems.

Credit: 2 semester-hours

BUSINESS EDUCATION 405. Marketing

Marketing is the process of transferring goods from the producer to the consumer. The functions involved in this process, the various channels of distribution, marketing institutions, and the costs of marketing are considered in this course. Such topics as auctions, produce exchanges, wholesalers, retailing, department and mail-order stores, chain stores, cooperatives, profits, and prices are included.

Credit: 2 semester-hours

BUSINESS EDUCATION 406. Advertising I

This course aims to acquaint the student with the social and economic aspects of advertising so that a fair evaluation may be made of its worth as well as its undesirable aspects. Copy appeals, the writing of copy, advertising layouts, and the selection of appropriate types of media for various advertisements are considered. Emphasis is placed on the research aspects of the subject so important today.

Credit: 2 semester-hours

BUSINESS EDUCATION 407A. Consumer Education I

This is a general introductory course designed to meet current needs for greater economic efficiency as outlined by the National Educational Policies Commission. The general objective of this course is to help improve the ability of individuals to choose and to buy economic goods and services so that stand-

ards of living may be raised. Some of the topics considered are: personal budgeting; the general art of buymanship; the cooperative movement; consumer standards and grade labels; weights and measures; governmental and producer aids for consumers; the wise buying of shelter, insurance, and investments; the intelligent use of installment buying and other forms of credit; and a general survey of the agencies for educating the consumer.

Credit: 2 semester-hours

BUSINESS EDUCATION 407B. Consumer Education II

This course is a continuation of Business Education 407A, but course 407A is not a prerequisite. The emphasis is on the economics of consumption with particular attention given to an analysis of the factors and forces back of consumer demand, such as custom, fashion, and advertising.

Credit: 2 semester-hours

BUSINESS EDUCATION 408. Business Finance

This course deals with the processes involved in the financing of business organizations from the time of their inception and promotion, during operation and expansion, and during the period of reorganization. Included are problems of financing by means of stock, borrowed capital, bonds, mortgages, and notes.

Credit: 2 semester-hours

BUSINESS EDUCATION 409. Money and Banking

This course provides a short historical survey of money and the evolution of banking, outside and within the United States. The organization of banks, the nature of their transactions, operations, and relations with other banks are considered. The functioning of the Federal Reserve System and the nature of the money markets are also examined.

Credit: 2 semester-hours

BUSINESS EDUCATION 410A. Cost Accounting I

A thorough knowledge of bookkeeping is a prerequisite to a profitable study of this course. The course deals with the basic principles of modern cost finding and cost keeping, and endeavors to give a practical application of these principles to present-day conditions. The practical application consists of a laboratory budget containing business papers, vouchers, pay-rolls, etc., together with full instructions for writing up a practice set of cost books.

Credit: 2 semester-hours

BUSINESS EDUCATION 410B. Cost Accounting II

This course is a continuation of 410A, and 410A is prerequisite to it.

Credit: 2 semester-hours

BUSINESS EDUCATION 411. Retail Store Management

The work of the store manager in retail store operation is fully explored in this course. The problems of organization and management as they are encountered in various types of retail stores are discussed. Consideration is given to trends, principles, and practices in small and large stores in both the independent and chain-store fields.

Credit: 2 semester-hours

BUSINESS EDUCATION 412. Transportation and Communication

The student in this course becomes acquainted with the various kinds of services rendered by transportation and communication agencies. He also receives some insight as to how to use these services most efficiently; the practices of the agencies; how and why they are controlled by the government.

Credit: 2 semester-hours

BUSINESS EDUCATION 413. Business Statistics

This course supplements courses in accounting and social business studies and includes a study of the fundamentals of statistics as they apply particularly to business data gathered from financial statements, sales records, and personnel records. Laboratory techniques are used in developing the methods of presentation.

Credit: 2 semester-hours

BUSINESS EDUCATION 414. Merchandising I

This course analyzes the problems of how, what, where, and when to buy; the terms of purchasing; tested receiving and marketing procedures; the mathematics of merchandising—setting the retail price, planning mark-up and markdown; and inventory controls. It is designed to assist the teacher of the prospective or actual small businessman.

Credit: 2 semester-hours

BUSINESS EDUCATION 415. Public Finance

This course aims to furnish a practical background for the student with respect to the nature and scope of governmental finance. Some of the areas studied are: the bases of taxation, income and expenses of government, and fiscal administration including governmental budgets.

Credit: 2 semester-hours

BUSINESS EDUCATION 416. Accounting Problems

This course supplements previous courses in developing a broad and thorough understanding of basic accounting theory as it is applied to business management today. The problem approach is used.

Prerequisites: BUSINESS EDUCATION 301 and 302

Credit: 2 semester-hours

BUSINESS EDUCATION 420. Field Studies in Business Education

This orientation course aims to introduce business education students, through direct observational techniques, to the realities of the business world. Six field trips are made in the New York Metropolitan Area which include visits to business organizations where the following types of business activity or relationships may be observed: production; merchandising and advertising; finance; transportation and communication; employer-employee relationships; government and business relationships. The field trips are supplemented by regular class sessions where discussions are held and visual aids presented to make the visits more meaningful.

Credit: 2 semester-hours

THE DEPARTMENT OF ENGLISH

The English Department serves the entire college by offering certain courses in composition, speech, and literature which are required of all students. It offers other courses which may be taken as electives by students who are preparing to teach in any field, and a four-year program for those students who choose the subject as a major field of specialization.

The four-year program offers a rich background of knowledge and literary experience to the student who wishes to teach English in the high school. Courses in speech and composition develop the student's ability to express himself orally and in writing. Other courses are designed to give the student understanding of the way human beings use language to express and communicate their ideas and experiences, of the types and forms of literature, of the major developments in the literary history of the Western world, of the many masterpieces of British and American literature, of the subtle and intimate relationship between literature and human culture, and of the ways by which expression and reading may develop and enrich the lives of high-school students.

Training for leadership in extra-curricular programs of the secondary school is provided in the activities of organizations sponsored by the Department. The ENGLISH CLUB welcomes to membership all English majors regardless of special interests and abilities and serves as an integrating factor for students in the Department. ALDORNIA, the honor society of the Department, limits its membership to those English majors who excell in scholarship. The CREATIVE WRITING CLUB offers opportunities for writing and criticism to those students interested in composition as a creative art. The SENATE is a society limited to men of the College who are interested in discussing music, art, literature, and contemporary social problems.

Two publications of the Student Government Association, THE MONT-CLARION (the College Newspaper), and THE MONTCLAIR QUARTERLY (a literary magazine), and two in the College high school, THE CRIER (school newspaper), and LA CAMPANILLA (school yearbook), are sponsored by the Department of English.

REQUIRED COURSES

Courses 100A, 100B, 200A, and 200B are required of all students. In lieu of English 200B speech majors and minors take English 103.

The following course requirements constitute the English major:

		Semester-hours
English 101. 7	The Language Arts	4
English 102. I	Drama from the Miracle Plays to O'Neill	4
English 201. I	Poetry from Chaucer to Frost	4
	British and American Fiction	
	Literature for Adolescents	
	Shakespeare's Major Plays	
	Survey of American Literature	
	The Teaching of English in Secondary Schools	
	Survey of British Literature	4
	r-hour elective course upon return from student	
teaching		2
		-
		33

Sixty observations divided between the junior and senior divisions of the College High School are required of senior English majors. These observations constitute partial fulfillment of the requirement to observe which is described in English 401.

In addition to courses listed in this bulletin, there are courses at the graduate level which are offered in the Part-Time, Extension, and Summer Sessions. These courses are open to undergraduates who have completed student teaching. These courses are described in detail in the Graduate Bulletin.

THE FIRST YEAR

The student begins his college study of English with a survey course in World Literature, required of all freshmen, which gives him an over-view of the development of Western culture and provides background for his reading and thinking on aesthetic, ethical, social, and political problems. The English major takes the course in The Language Arts so that he may study the problems inherent in the communication of meanings through linguistic symbols and be better prepared to study and teach the uses of language. He also takes the course in Drama from the Miracle Plays to O'Neill, the first of three courses in which the major types of literary expression are investigated.

ENGLISH 100A and 100B. World Literature: Its Masters and its Forms
For a description of these courses, see page 45.

Credit: 3 semester-hours each

ENGLISH 101. The Language Arts

This course is designed to give the student a scientific understanding of the uses of language, to the end that he may learn to interpret more intelligently neanings conveyed through human speech and writing—including prose, poetry,

and propaganda—and may be better equipped to teach high-school students to write, read, speak, and listen comprehendingly.

Credit: 4 semester-hours

ENGLISH 102. Drama from the Miracle Plays to O'Neill

This course is concerned with the historical development of English drama from its beginnings to the present day and analyzes the characteristics of drama as a literary form. Considerable emphasis is given to the contemporary drama.

Credit: 4 semester-hours

THE SECOND YEAR

All students in the second year are given special training in Composition (200A) and in Speech (200B). The English major continues his investigation of the development of the major types of literary expression by studying *Poetry from Chaucer to Frost* and *British and American Fiction*.

ENGLISH 200A. Composition

For a description of this course, see page 46.

Credit: 3 semester-hours

ENGLISH 200B. Fundamentals of Speech

For a description of this course, see page 46.

Credit: 3 semester-hours

ENGLISH 201. Poetry from Chaucer to Frost

This course surveys the development of English poetry from its beginnings to the present time. Its study includes the types of poetic statement, the historical development of the styles and forms of English poetry, the life and work of the major British and American poets, and the critical appreciation of poetry as an art and as an expression of life.

Credit: 4 semester-hours

ENGLISH 202. British and American Fiction

This course is designed primarily to acquaint the student with the great novels of English and American literature from Defoe to Hemingway. A second major objective is to guide future teachers in the selection and treatment of novels suitable to high-school students of varying age levels and social backgrounds.

Credit: 4 semester-hours

THE THIRD YEAR

Having acquired a broad literary background in the first two years, in the third year the English major prepares for teaching high-school English by studying Literature for Adolescents, Shakespeare's Major Plays, and Survey of Amer-

ican Literature. During the spring semester of this year opportunities to elect courses of special interest are provided to English majors, and to majors in other departments.

ENGLISH 301A. Literature for Adolescents

A study of the reading interests of different age levels introduces problems involved in the selection of literature for students from the fifth through the twelfth grades. Reading and analysis of literature for children as well as for the young adolescent are required.

Credit: 2 semester-hours

ENGLISH 301B. Shakespeare's Major Plays

The plays of Shakespeare which are most frequently taught in the high school are studied. Discussion of Shakespeare's conception of tragedy and comedy, his dramatic art, the sources of his plays, staging in Shakespeare's theatre and in our own, and typical textual problems, provides the student with a background for teaching Shakespeare in the secondary school.

Credit: 2 semester-hours

ENGLISH 302. Survey of American Literature

A survey of American literature from its seventeenth century beginnings to the present day is undertaken in the course, and the political and social backgrounds are studied in the light of their influence upon literary history. Special attention is given to those classics which are frequently encountered in the high-school curriculum.

Credit: 4 semester-hours

ENGLISH 310. Journalism

This course is designed to qualify the student to teach high-school journalism. Its aim is to give the student training in recognizing news; gathering it; and preparing it for print, including copyreading, headline writing, proofreading, and page make-up. The course assumes little or no previous journalistic training.

Credit: 2 semester-hours

THE FOURTH YEAR

In its major purposes the fourth year looks backward and forward. The Department offers a detailed chronological survey of English literature by which the student retraces the road he has traveled.

The Teaching of English makes concrete the professionalized work which has been continually stressed throughout the student's college career. By discussion, by daily observations of demonstrations, and by participation in the College High School, the full meaning of those professional ideas and ideals that have been kept before him throughout his college course is demonstrated.

ENGLISH 401. The Teaching of English in Secondary Schools

Students are taught to develop and use materials of the classroom; lesson plans and units of work are prepared and presented for criticism; textbooks are analyzed for training in their use; and bulletin board exhibits and visual education materials are prepared by students for the class. Observation and criticism of teaching in the College High School, and criticism of student compositions are required.

Credit: 3 semester-hours

ENGLISH 402. Survey of British Literature to 1798

This course draws together into a systematic narrative the story of the development of English literature from the beginnings to the romantic triumph in 1798.

Credit: 4 semester-hours

ENGLISH 404. Survey of British Literature

This course is a continuation of English 402. It takes up the story with the romantic triumph in 1798 and continues it to the present time.

Credit: 2 semester-hours

ENGLISH 405. The Victorian Poets

This course covers the work of the Brownings, Tennyson, Arnold, Clough, Morris, the Rossettis, and Swinburne. The authors are presented in relation to the moral, religious, social, and political life of nineteenth-century England.

Credit: 2 semester-hours

ENGLISH 406. The Modern Novel

Particular emphasis is given to British and American novels since 1870, and the important tendencies of present-day prose fiction are explored. Students are taught how to read a novel with profit, and how to guide and direct the reading of others.

Credit: 2 semester-hours

ENLISH 407. British and American Biography

Both the old and new types of biography are read and studied in this course, with emphasis upon the nineteenth and twentieth centuries. Biography is presented for its cultural and informational values, for its use in integrating the work of the various departments in the high school, and for its direct help in the vocational guidance program.

Credit: 2 semester-hours

ENGLISH 408. Creative Writing

Students in this course attempt seriously the standard literary forms in prose and verse. Each student is assisted in finding his own best field of writing, and is given further training in that field. The course is based entirely upon the needs of the class as revealed in student-written manuscripts. Much time is devoted to criticism and to discussion of mutual problems. Wherever possible, the course is made to reflect methods of creative teaching in the field of composition.

Credit: 2 semester-hours

ENGLISH 409. The Teaching and Appreciation of Poetry

This course is both personal and professional. It develops the student's appreciation of poetry as an expression of life and as a form of art, and it considers in detail the aims and methods of teaching poetry.

Credit: 2 semester-hours

ENGLISH 413. Modern Poetry

This course deals with the work of contemporary poets, both British and American. Much of the best modern poetry is studied for interpretation and appreciation. The distinctive poetry "movements" that have occurred during the present century are examined as expressions of changing social and artistic ideals. Critical appreciation of poetry is developed through comparison of the diverse styles, themes, and poetic theories present in modern poetry.

Credit: 2 semester-hours

ENGLISH 414. Public Relations and School Publicity

This course considers such problems as the development of a student publicity staff, preparation of copy for professional newspapers, publicity for school news, and the development of better school-community relations. A study is made of other publicity media, including radio, visual aids, the platform, displays and exhibits, special events, sports promotion, and fund-raising. A background of elementary journalism is helpful in this course.

Credit: 2 semester-hours

ENGLISH 419. Grammar for Teachers

This course is a study of the basic facts of grammatical relationships in English, and of the current problems of "rules" as opposed to "usage." The primary aim of the course is to acquaint students with the true function of grammar in speech and writing.

Credit: 2 semester-hours

ENGLISH 420. High School Classics

This course is a seminar for prospective student teachers on the problem of teaching literature in high schools. The student reads numerous articles on the "classics" vs. the "moderns" controversy, becomes thoroughly acquainted with the contents and aims of the best high school anthologies currently in use, and builds up a working philosophy for his own teaching. Through the continual practice of reporting and discussion leading, the student is enabled to integrate his total experience in college.

Credit: 2 semester-hours

ENGLISH 421. The Short Story

The course traces the history of the short story as an evolving literary form, emphasizing the productions of the nineteenth and twentieth centuries. Many stories are analyzed for both human and literary values. Professional use of the short story is the guiding purpose in the conduct of the course.

Credit: 2 semester-hours

ENGLISH 422. Seventeenth Century Literature

This course covers the period from Donne through Dryden. It deals with Jacobean and Restoration drama; the Jonsonian, Metaphysical, and Restoration lyric; the prose of Browne, Walton, Donne, Taylor, Hobbes, Burton, and Bunyan; the prose and verse of Milton; the prose and verse of Dryden.

Credit: 2 semester-hours

ENGLISH 426. The Victorian Novel

This is an intensive unit of work on the novel in Victorian England. A review of the development of the English novel before this period is followed by studies in the works of Dickens, Thackeray, Austen, Eliot, Trollope, Meredith, and Hardy. Novels studied in the high school are treated professionally in class.

Credit: 2 semester-hours

ENGLISH 427. Theatre and Society

Dramatic expression from the time of the ancient Greeks to the present is studied carefully to analyze social, political, and ethical trends as they are reflected in the drama. The members of the course prepare analyses of social trends in contemporary drama. This research provides the basis for reports given during the latter part of the course.

Prerequisite: ENGLISH 102 or its equivalent

Credit: 2 semester-hours

ENGLISH 430. Reading in Secondary Schools

After examination of recent research concerning reading activities at various age levels, the class undertakes to evaluate methods devised to develop reading skills, to increase vocabularies, and to improve the comprehension of secondary-school students.

Credit: 2 semester-hours

ENGLISH 431A and 431B. Shakespeare

This course, in two parts, presents all of Shakespeare's plays as opposed to those taught only in high school, which is the chief concern of English 301B. Here the poet's full development can be seen, providing a complete critical experience. Critical analysis, contentual evaluation, and textual problems are the main areas of concern. Part A deals with the tragedies; Part B, the comedies. The chronicle plays are woven into the discussion.

Credit: 2 semester-hours each

ENGLISH 75

ENGLISH 432. The Development of the Drama

The development of the drama is studied in all periods from ancient Greece and Rome through the Middle Ages and the Renaissance to the beginning of modern drama with Ibsen. The emphasis of the course is placed on trends, developments, and the major characteristics of the drama and its necessary complement, the theatre. Representative plays are read and discussed.

Credit: 2 semester-hours

ENGLISH 438. Masters of American Literature

Significant American writers, including Irving, Hawthorne, Poe, Emerson, Melville, Whitman, and Mark Twain are studied to discover their contributions to American life and to reveal important forces in our national background.

Credit: 2 semester-hours

ENGLISH 439. Contemporary American Literature

This course studies the major authors and literary movements in America during the contemporary period. Beginning where the course in *Masters of American Literature* normally ends, it is designed to complete a unit in this subject.

Credit: 2 semester-hours

ENGLISH 441. Medieval, Epic, Saga, and Romance

This course deals with the chief medieval epics, sagas, and romances from the literatures of England, France, Germany, Ireland, Iceland, Wales, and Italy in modern English translation. Attention is given both to those narratives which reflect the life of a particular country and to those which are international and express more generally the spirit of medieval Europe.

Credit: 2 semester-hours

ENGLISH 442A and 442B. American Literature

This chronological survey reflects the interplay of life and letters in the American scene, examining the political, social, and ethical motivations of the great movements in literature, and reading the separate works in the light of the influences that brought them into being. Part A commences with the Puritan Tradition and ends just as the Civil War is beginning. Part B traces, in life and in literature, the growth of the great democratic tradition in America.

This course is not a duplicate of English 302, *Survey of American Literature*. English 442A and 442B may be elected by advanced undergraduates as the equivalent of English 302 with the approval of the head of the department.

Credit: 2 semester-hours each

ENGLISH 443. Modern Drama

An historical survey of trends, dramatists, plays, and accomplishments from Ibsen to the latest prize plays on Broadway provides background for this course.

An examination of the structure and content of plays to determine what constitutes a good play stimulates appreciation. Students are encouraged to read widely and to see current productions on Broadway.

Credit: 2 semester-hours

ENGLISH 445. Eighteenth Century Literature

Major essayists, poets, dramatists, novelists, and letter writers are read and evaluated in terms of the thought, life, and literary movements of their own time and of their significance for the present generation. Authors studied include Addison, Steele, Defoe, Swift, Goldsmith, Sheridan, Gray, Johnson, Boswell, Cowper, Richardson, Fielding, Sterne, Smollett, and Burke. High-school classics receive special attention.

Credit: 2 semester-hours

ENGLISH 446. The One-Act Play

This course studies the one-act play as an art form, devoting special attention to plays which are suitable for high school production.

Credit: 2 semester-hours

ENGLISH 447. Philosophy of Great Literature

By studying one or two masterpieces in a given semester this course aims to help the student develop a plan of study to achieve a systematic understanding of the philosophic world-views and life-views implicit in such works as: Aeschuylus's trilogy, The Oresteia; Plato's Timaeus; Boethius's Consolations of Philosophy; Dante's Divine Comedy; Shakespeare's Hamlet; Milton's Paradise Lost; Pascal's Pensées; Goethe's Faust; Blake's The Marriage of Heaven and Hell; Dostoievski's Brothers Karamazov; Mann's The Magic Mountain; Hesse's Demian; Henry Adams's Mont St. Michel and Chartres; the Bhagavad-Gita; Lao-tse's The Book of Tao; and Auden's Collected Poetry.

Credit: 2 semester-hours

ENGLISH 451. Literature and Art in Western Culture

This course deals with the nature of literature and considers its importance as a factor in the development of international understanding. It deals with the relation between the use of language in literature and with the methods of art since the re-creation of experience is a function common to both. Through reading the literature which is being read by our neighbors today, both in Europe and in the Western Hemisphere, students are able to participate in a common experience with them.

Credit: 2 semester-hours

ENGLISH 455. Reading Interests of High School Students

Through wide reading, study and preparation of bibliographies, and establishing criteria for judging current books, the student is prepared to guide the recreational reading of junior and senior high-school students.

Credit cannot be given for both ENGLISH 301A and 455.

Credit: 2 semester-hours

ENGLISH 77

ENGLISH 459. A Survey of Great Chinese Literature

Some of the contributions which have gone into the making of Chinese literature, such as the *Book of Odes* of Confucius, the poems of Li Po and Tu Fu, the Lute Song, and the *Dream of the Red Chamber*, are considered in this course. Aside from a general survey of the great literature of China special attention is given to English translations of the masterpieces of Chinese literature. There are twenty-four hours of lectures in the morning; after lunch each day a period of forty-five minutes is devoted to informal talks, story-telling, singing of Chinese songs, and showing of motion pictures. During the workshop period individual students work on specific topics under the guidance of the instructor.

Prerequisite: SOCIAL STUDIES 499, China Workshop

Credit: 3 semester-hours

ENGLISH 460. American Literature of Social Problems

This course surveys the American literature which presents social problems during the period from 1800 to 1914 in an attempt to discover the attitudes of the various authors toward these problems. The works of such authors as Cooper, Lowell, Thoreau, Whitman, Howells, Bellamy, Garland, and Glasgow are studied from this point of view. Enough of the social background of the period is discussed to give the necessary perspective for the discussion of the literature, but the emphasis is placed on the reflection of the problems in literature and not merely on the problems themselves.

Credit: 2 semester-hours

THE SPEECH MAJOR

A growing recognition on the part of school administrators of the important role played by public speaking, discussion, conversation, and dramatic productions in achieving the goals of education has increased the demand for instructors of speech in the secondary schools. Such teachers must be able to guide students in learning to formulate and to express effectively their opinions concerning what they believe and hear. They must be able to lead and to participate in discussions and dramatic productions. Moreover, the frustrations, maladjustments, and character deterioration which result from being isolated from the group because of defective speech have been shown to be preventable, to a large degree, through speech correction. For that reason, speech correctionists are needed for work in elementary schools and often in an entire school system.

Since the teacher of speech and dramatics, in some school systems, is expected to guide both the speech improvement and the speech correction program, the speech major has been designed to prepare prospective teachers for positions as teachers of speech and dramatics and as speech correctionists.

Further experience in the field is afforded through extra-curricular activities sponsored by the Speech Department. PLAYERS, a society open to the entire student body, promotes interest in drama and gives at least two major productions each year. ZETA PHI, although open to all students interested in the

field of speech, is largely an organization of speech majors and minors, which devotes its meetings to performances of its members and to discussions of problems in speech education. SIGMA ALPHA ETA, national speech correction honor society, is represented on this campus by Zeta Chapter.

REQUIRED COURSES

The following course requirements constitute the speech major:

		Semeste	er-hours
English 104.	Phonetics		2
English 105.	Fundamentals of Acting		2
English 106.	Oral Interpretation		2
English 204.	Extemporaneous Speaking		2
English 208.	Physics and Physiology of Speech and Hearing		3
English 209.	Speech Correction		2
English 410.	Speech Pathology		2
English 417.	Methods in the Teaching of Speech		3
English 435.	Stagecraft		2
English 456.	Play Direction		2
English 457.	Workshop in Speech Activities		2
English 461A.	Speech Laboratory Practice		2
English 461B.	Advanced Speech Laboratory Practice	• •	2
English 463.	Audio-Visual Aids in Teaching Speech	• •	2
English 464.	Speech Psychology	• •	2
English 465.	Speech Arts Activity	• •	1
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In addition to the course requirements for the speech major as listed above speech majors are required to take the following course:

English 103. Fundamentals of Speech for Speech Majors....3 semester-hours Required of speech majors and minors in lieu of English 200B. Speech majors are required to minor in English.

THE SPEECH MINOR

Eighteen semester-hours of work, chosen from the following courses according to these stated requirements, constitute the speech minor. (English 103, Fundamentals of Speech for Speech Majors, is required of all speech majors and minors in lieu of English 200B, Fundamentals of Speech.) The requirements for the speech minor may then be met by the following courses:

- SPEECH FUNDAMENTALS—5 semester-hours required
 Take English 104, Phonetics, and
 English 208, Physics and Physiology of Speech and Hearing
- 2. PUBLIC SPEAKING—2 semester-hours required Take English 204, Extemporaneous Speaking
- 3. INTERPRETATION—2 semester-hours required Take English 106, Oral Interpretation, or English 448, Choral Speaking

4. DRAMATICS—2 semester-hours required

Take English 105, Fundamentals of Acting, or

English 435, Stagecraft, or

English 456, Play Direction

5. Speech Correction—4 semester-hours required

Take English 209, Speech Correction, and English 410, Speech Pathology

6. METHODS—3 semester-hours required

Take English 417, Methods in the Teaching of Speech

SEQUENCES OF COURSES

A. Required Sequences

English 103 during the first half of the sophomore year—prerequisite to other speech courses

English 208 in first half of sophomore year—prerequisite to English 209 and English 410

English 209 before or with English 410

B. Recommended Sequences

English 204 before English 449

English 105 before English 456

Possible elections in speech for those desiring more than the minimum requirements listed above include the following courses:

English 454, Training the Speaking Voice

English 457, Workshop in Speech Activities

English 458, Radio Directing

English 461A, Speech Laboratory Practice

English 461B, Advanced Speech Laboratory Practice

English 463, Audio-Visual Aids in Teaching Speech

English 465, Speech Arts Activity

Transfer students please confer with a member of the speech faculty regarding courses taken elsewhere which can be accepted as fulfilling any of the above requirements.

THE SPEECH MAJOR—THE FIRST TWO YEARS

During the first two years the speech major is given experience in elementary courses in oral reading, speaking, acting, voice improvement, phonetics, and an introduction to speech correction.

ENGLISH 103. Fundamentals of Speech for Speech Majors

This course, in general, covers the same areas as English 200B, but it is designed specifically for speech majors. See the description of English 200B.

Credit: 3 semester-hours

ENGLISH 104. Phonetics

In this course the student becomes acquainted with the International Phonetic Alphabet and is given practice in using the symbols both in transcribing and in reading from transcriptions.

Credit: 2 semester-hours

ENGLISH 105. Fundamentals of Acting

The techniques of acting, pantomime, and characterization are studied and practiced in this course. A minimum of twelve clock hours of participation in the production of a play by the class or by Players is required for credit.

Credit: 2 semester-hours

ENGLISH 106. Oral Interpretation

This course is organized to increase the student's appreciation of poetic and dramatic literature from the standpoint of art in sound, and to develop his potentialities in oral reading.

Credit: 2 semester-hours

ENGLISH 204. Extemporaneous Speaking

This course provides maximum platform practice. Students speak on subjects of current interest, paying attention to content, organization of material, and essentials of effective oral presentation. This course is required to teach speech.

Credit: 2 semester-hours

ENGLISH 208. Physics and Physiology of Speech and Hearing

The fundamental principles of the physics of sound, the operation of the vocal mechanism in producing speech sound, and the functioning of the aural mechanism in detecting sound and distinguishing its various characteristics, especially those significant in the understanding of speech, are considered. An introduction to the International Phonetic Alphabet in relation to the various speech sounds of English is included. This course is required for teaching speech and speech defectives.

Credit: 3 semester-hours

ENGLISH 209. Speech Correction

A study of the problems inherent in such abnormalities as lisping, cluttering, vocal monotony, and general articulatory inaccuracies is undertaken in order that the nature of the problems, their diagnosis, and correction may be understood. This is required to teach speech and speech defectives.

Prerequisite: English 208.

Credit: 2 semester-hours

ENGLISH 435. Stagecraft

This workshop course provides training in construction and painting of scenery and lighting the stage. A minimum of twelve clock hours of craft work

upon a production of the College or the College High School is required for credit in this course.

Credit: 2 semester-hours

THE THIRD YEAR

During the third year the speech major is introduced to speech laboratory work under careful supervision, and learns the psychological principles of speech acquisition, as well as of oral communication. He takes a course in Stagecraft which introduces him to another phase of play production. He puts the theory into practice by his work with Players, and in a course in Speech Arts Activity. A course in the Audio-Visual Aids in Teaching Speech introduces him to the devices and materials he can use to enrich his teaching.

ENGLISH 410. Speech Pathology

This course deals with diagnostic and corrective procedures, cause and treatment for stuttering, cleft palate, spastic speech, and aphasia. This course is required to teach speech and speech defectives.

Prerequisites: ENGLISH 208 and 209

Credit: 2 semester-hours

ENGLISH 461A. Speech Laboratory Practice

After the techniques of interviewing, of preparing case histories, of diagnosing speech disorders, of planning therapies, and of determining prognoses have been taught through lectures and demonstration lessons, each student is assigned one or more persons with speech defects for supervised practice in correcting speech disorders. Credit is given on a laboratory basis, and the course meets three hours weekly. This course is required for the teaching of speech defectives.

Credit: 2 semester-hours

ENGLISH 461B. Advanced Speech Laboratory Practice

This course provides for additional supervised speech correction practice with adults or children with speech disorders. Credit is given on a laboratory basis, and the course meets three hours weekly.

Credit: 2 semester-hours

ENGLISH 463. Audio-Visual Aids in Teaching Speech

The aim of this course is to equip prospective teachers to understand the desirable characteristics; capabilities; and all possible uses of charts, models, and magnetic and disc recorders available for the teaching of speech. The distribution, cost, operation, servicing, and storing of instruments and of supplies are also considered.

Credit: 2 semester-hours

ENGLISH 464. Speech Psychology

The mental processes involved in acquiring language and in using it in effective oral communication are reviewed. Problems involving psychological principles as they apply to oral teaching, to audience leadership and control, to the alleviation of stage fright, and to the teaching of speech improvement are considered along with the principles of general semantics.

Credit: 2 semester-hours

ENGLISH 465. Speech Arts Activity

Each speech major is required to earn at least one semester-hour of credit in some supervised speech-arts activity, such as: playing a major role in a major production; directing a three-act play or its equivalent; giving a public play reading or lecture recital; directing a series of assembly programs; or directing and producing a series of radio programs.

Credit: 1 semester-hour

THE FOURTH YEAR

The course in Methods in the Teaching of Speech should be for the speech major a review of the principles learned in previous courses with a multitude of suggestions for techniques to be used in imparting that knowledge and developing those skills in the students whom he will teach. With this overview there should emerge a clear picture of the place of speech skills in the educational pattern and a philosophy which will give depth to teaching throughout one's professional career.

After a twelve-week period of teaching in a New Jersey secondary school the speech major returns to a workshop course in speech activities to round out his professional preparation.

ENGLISH 417. Methods in the Teaching of Speech

In this course a study is made of the objectives of speech education, modern trends in instruction, speech textbooks and teaching materials, and the integration of speech with other academic departments of study. This course is required to teach speech.

Credit: 3 semester-hours

ENGLISH 448. Choral Speaking

As members of a speaking choir, students acquire skill in interpreting various forms of literature suitable for group treatment.

Credit: 2 semester-hours

ENGLISH 449. Public Speaking

This is an advanced course in the theory and practice of public speaking. It provides opportunity for training in the more complex speech skills, espe-

cially in the techniques of leadership in speech situations and the techniques for making speech responses in cooperative situations.

Prerequisite: English 204 or the equivalent.

Credit: 2 semester-hours

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ENGLISH 454. Training the Speaking Voice

This is a course in the study of the problems of speech, the development of a pleasing speaking voice with precision in diction, and the application of speech skills to practical speaking situations.

Credit: 2 semester-hours

ENGLISH 456. Play Direction

This course covers the choosing and casting, as well as directing, of plays. Scenes are directed for class criticism, and a detailed prompt-book of one play is prepared. This course complements English 435.

Credit: 2 semester-hours

ENGLISH 457. Workshop in Speech Activities

It is the purpose of this course to prepare students to organize and to conduct assembly programs, PTA demonstrations, and similar activities. Class lectures and discussions cover all phases of the director's responsibilities. Groups conduct research on suitable program materials and share their findings with classmates. Each student prepares a list of programs of various types which he could present during a school year.

Credit: 2 semester-hours

ENGLISH 458. Radio Directing

This course offers training in the organization and direction of radio programs, and equips the student to select material for broadcasting and to cast and to rehearse programs. Listening is directed toward an analysis of common radio presentation techniques and the appreciation of successful programs.

Credit: 2 semester-hours

ENGLISH 462. Group Discussion and Leadership

Students are taught the principles of democratic discussion and methods for guiding the committee meeting, panel symposium, lecture, and debate forums. Frequent opportunities to apply these principles and methods are given through discussion of topics chosen by the class.

Credit: 2 semester-hours

ENGLISH 466. Speech Development: Improvement and Reeducation

This course is intended for superintendents, principals, and classroom teachers who have little or no background in speech education. Consideration is given to the following topics: (1) speech development; (2) speech difficulties or problems found on the kindergarten, elementary, and secondary-school levels;

(3) acquisition of good voice and speech characteristics; (4) use of techniques and materials in classrooms to motivate good speech patterns; and (5) ways of setting up and integrating speech education in school systems. Demonstrations with individuals and groups are made, and students are expected to prepare a practical project.

Credit: 2 semester-hours

THE DEPARTMENT OF FOREIGN LANGUAGES

The Foreign Language Department aims to train teachers for the junior and senior high schools in sound scholarship, true culture, and sympathetic understanding of the foreign people whose language they are to teach.

All the courses in the Department of Foreign Languages are planned to provide linguistic skill, literary appreciation, and understanding of human relationships in order to insure efficient professional service. The emphasis is on sequential development which has the effect of unifying the work within the Foreign Language Department and of correlating it with the work of the other departments, particularly the English, Social Studies, Integration, and Music Departments.

Students majoring in a foreign language are required to take work in that language for the four years of the college course. In these four years the prospective teacher of French, Spanish, or Latin acquires a fundamental knowledge of his major subject and an understanding of world problems.

For majors in a chosen language the following courses are required: 101, 102, 201, 202, 301, 302, 401, 402, and 404.

For minors in a foreign language the following courses are recommended: 101, 102, 201, 202, and 402.

Prerequisite for those majoring or minoring in any foreign language are three or four years of high school work in the language. Consideration will be given to excellent students who have not fully met this requirement. High School Latin is desirable for all language work, but it is not prerequisite for the study of a modern language at the College. The class work in French and Spanish is conducted entirely in these languages.

The Foreign Language Department sponsors three literary clubs and one graduate organization. In these extra-curricular activities prospective language teachers have ample opportunity for leadership, creative work, and worthy employment of leisure time.

The College High School plays an important part in the daily life of students of the Foreign Language Department. During the freshman and sophomore years regular observation of the high school classes in the language of their major is required. A change from observation to active participation through limited assistantship and occasional demonstration is made during the junior and senior years. Thus, the subject-matter of high school and college language classes is thoroughly integrated.

An attractive feature of the foreign language work preparatory to high-school teaching is the possibility of a year of study in a foreign country, a feature which this College stresses in its training of teachers of modern languages.

Students desiring academic credic for STUDY ABROAD register for the work before taking it. All such matters as the country and institution in which the work is to be done, the amount of credit to be received, reports to be made, and the like, are prearranged with the head of the department. For further information about this work, see page 31.

In the last twenty years, one hundred and forty students from the College have spent a year of study in colleges and universities of Austria, France, Germany, Canada, Mexico, Spain, Switzerland, and South America.

In appreciation of the professional help granted to Montclair students by foreign countries, students from abroad interested in the teaching of English in the schools of their home countries have been invited as guests for a year of study at Montclair State Teachers College. In the past students from Austria, Germany, France, Cuba, Mexico, and Spain have taken work at the College.

It is impossible to estimate to its full extent the importance of this student exchange movement in the field of education. It may prove to be one of the most vital steps in the advancement of modern foreign language teaching in American high schools of today and tomorrow.

FRENCH

The following courses are arranged to give the prospective high school teacher of French an understanding of the French people, their culture, and their problems through a study of the development of their civilization—their social, economic, political, literary, and artistic life. All courses are given entirely in French, and are designed to give ever-increasing opportunities to develop self-expression in the foreign tongue through readings, discussions, and reports.

The following course requirements constitute the French major:

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	S	emester-hours
French 101.	French Civilization: Early Periods	. 4
French 102.	French Civilization: Renaissance	. 4
French 201.	French Civilization: 17th Century	. 4
French 202.	French Theatre: Corneille, Moliére, Racine	. 4
French 301.	French Civilization: 18th Century	. 4
French 302.	French Civilization: The Romantic Movement	. 4
French 401.	The Teaching of French in Secondary Schools	
French 402.	Advanced French Grammar and Composition	. 4
French 404.	The Great Currents of Contemporary French Literature.	. 2
		33

THE FIRST YEAR

French Civilization

FRENCH 101. French Civilization: Early Periods FRENCH 102. French Civilization: Renaissance

The freshman courses present the background for all subsequent linguistic

and literary studies in French. During the first semester special attention is devoted to bringing all the students up to a uniform level of development in speaking, reading, and writing French so that homogeneous class work may be assured. This objective is accomplished by a careful appraisal of the results of the required three years of study of high-school French, the correction of weaknesses discovered, constant training in speaking French both in the classroom and in special conversation classes, and practice in French composition and dictation. During this year, especially in the second semester, definite units of work in French civilization are presented with special emphasis on the geography of France and French history to the 17th century.

Credit: 4 semester-hours each

THE SECOND YEAR

Seventeenth Century French Literature

FRENCH 201. French Civilization: 17th Century

FRENCH 202. French Theatre: Corneille, Molière, Racine

In the sophomore year the student is introduced to the literature and life of the 17th century, an age of important French contributions to the world's literature. Although special attention is given to the works of the three great French dramatists, the contributions of other significant writers are carefully examined. These include Descartes, Boileau, Bossuet, Pascal, La Fontaine. The colorful reigns of Louis XIII and Louis XIV furnish the historical background of this century.

Credit: 4 semester-hours each

THE THIRD YEAR

FRENCH 301. French Civilization: 18th Century

FRENCH 302. French Civilization: The Romantic Movement

The junior courses aim to train students in all phases of the literature of 18th century France and the Romantic Movement. In them it is sought to evaluate French thought, to present a picture of French civilization as expressed in architecture, painting, sculpture, furniture, music, and by so doing to throw some light on the problems of contemporary France. These courses constitute an advanced language study based on *explication de textes* of representative authors, both prose writers and poets.

Credit: 4 semester-hours each

THE FOURTH YEAR

Theory and Practice in the Teaching of French

The courses in French during the senior year are designed to combine all the professionalization of previous French courses with a careful study of the teaching of French in the secondary schools. The period of practice teaching allows the prospective teacher to test his scholarly preparation under the guidance of a successful high-school teacher.

FRENCH 401. The Teaching of French in Secondary Schools

For a description of this course, see LANGUAGE 401, page 93.

Credit: 3 semester-hours

FRENCH 402. Advanced French Grammar and Composition

This course develops a complete review of French grammar and composition as a basis for advanced work in the writing of French. It emphasizes syntax and style, the explanation of forms in the light of historical grammar, and includes a study of selected French readings to determine their suitability for high-school use on the basis of diction and grammatical usage.

Credit: 4 semester-hours

FRENCH 404. The Great Currents of Contemporary French Literature

A survey of contemporary French literature is based on the study and interpretation of French civilization and literature in the pre-war, war, and post-war generations. The threefold aim of the course is: (1) to help the student better to understand and to appreciate the new trends of thought in France through literary interpretation; (2) to enable him to plan his reading intelligently by selecting from the abundant materials that contemporary literature offers to his choice; and (3) to give him a background for a more thorough study of this period of French literature. The course includes lectures, class and individual readings, and discussions.

Credit: 2 semester-hours

FRENCH 405. Development of the French Novel

This course traces the development of the various types of French novel from its origin to our times.

One work characteristic of each period of development is read and analyzed for its background revealing life in France, its character delineation, and its literary value and influence. The student is expected to read extensively and critically and to report on his findings.

Credit: 2 semester-hours

FRENCH 410. The Anthology of French Poetry

This course presents a picture of the development of the French language and literature through the study of poetry as an expression of different literary movements. Authors representative of each period are studied, with special emphasis placed on the fifteenth and sixteenth centuries and the literary schools following the romantic movement. The course is conducted in French and provides opportunity for the improvement of clearness of enunciation and pronunciation as well as for personal enrichment through an appreciation of French poetry.

FRENCH 415. The French Club and Other Extra-Curricular Activities

This course, designed particularly for teachers of French, surveys briefly the aims of extra-curricular activities in modern language work and emphasizes especially: (1) the organization of extra-curricular activities, (2) the preparation of materials, and (3) the procedures. The course is conducted in French on the model of a forum with general discussion. The actual conduct of an extra-curricular activity is required as a laboratory exercise.

Credit: 2 semester-hours

LATIN

The work in Latin is designed to build upon the results of high-school Latin a solid structure of knowledge, (1) of Roman civilization in its varied aspects, and (2) of the professional phases of Latin instruction. Particular emphasis is laid on knowledge of Latin as a language, on Latin literature, and on the development of Roman social, political, and economic institutions.

The following course requirements constitute the Latin major:

			semesier-no
Latin	101.	The Masters of Prose Literature: Cicero and Others	. 4
Latin	102.	The Masters of Poetic Literature: Horace and Others	4
Latin	201.	Roman Letter Writing: Pliny and Others	4
Latin	202.	Roman History: Tacitus and Others	. 4
Latin	301.	Roman Drama: Plautus and Terence	. 4
Latin	302.	Roman Satire: Petronius, Seneca, and Juvenal	. 4
Latin	401.	The Teaching of Latin in Secondary Schools	3
Latin	402.	Advanced Latin Grammar and Composition	4
Latin	404.	Late Latin: St. Augustine and The Church Fathers	2
		S .	
			23

THE FIRST YEAR

The Golden Age of Latin Literature

LATIN 101. The Masters of Prose Literature: Cicero and Others LATIN 102. The Masters of Poetic Literature: Horace and Others

These courses provide for continued development from the high school foundation by, (1) translation and interpretation of selected works from the Golden Age of Latin literature, and (2) a survey of the essentials of Roman civilization.

Credit: 4 semester-hours each

THE SECOND YEAR

The Silver Age of Latin Literature

LATIN 201. Roman Letter Writing: Pliny and Others LATIN 202. Roman History: Tacitus and Others

In this year the work in Latin includes: the translation and interpretation of selected works from the Silver Age of Latin literature as a survey of Roman

LATIN 89

private life and a basis for comparison with present-day trends of human activity.

Credit: 4 semester-hours each

THE THIRD YEAR

Roman Drama and Philosophy

LATIN 301. Roman Drama: Plautus and Terence

LATIN 302. Roman Satire: Petronius, Seneca, and Juvenal

During the junior year selected dramas of Plautus and Terence are read not as ends in themselves but as avenues to the study of dramatic literature in general and the acquisition of sound standards of literary criticism. Changing literary values are discussed in a series of lectures on Latin literature. Roman satire is read to introduce the student to this type of literature and to the Roman life of this period.

Credit: 4 semester-hours each

THE FOURTH YEAR

Theory and Practice in the Teaching of Latin

The senior courses in Latin are designed to combine all the professionalization of previous Latin courses with a careful study of the teaching of Latin in secondary schools. The period of student-teaching allows the prospective teacher to test his scholarly preparation under the guidance of a successful high-school teacher.

LATIN 401. The Teaching of Latin in Secondary Schools

For a description of this course, see LANGUAGE 401, page 93.

Credit: 3 semester-hours

LATIN 402. Advanced Latin Grammar and Composition

The aim of this course is to develop a comprehensive view of Latin grammar, to give practice in the writing of Latin according to the styles of Caesar and Cicero, to study those styles as evidenced in the best-known works, and to set up standards of criticism of both prose and poetical writing. These objectives stress materials useful in high-school teaching.

Credit: 4 semester-hours

LATIN 404. Late Latin: St. Augustine and The Church Fathers

The special emphasis in this course is on the works of St. Augustine. The attention centers on church literature with the purpose of studying the transition to modern western culture.

SPANISH

Following the trend of the times, the work in Spanish while maintaining the classic approach is now placing considerable emphasis on Hispanic-American civilization. To a great extent our national policy of Western hemisphere comity and the immediate economic importance of Central and South America underlie the present keen interest of high-school students in the study of Spanish. The courses are given in Spanish and are designed to give the prospective teacher of Spanish ample opportunities for self-development in the foreign tongue through readings, discussions, and reports.

The following course requirements constitute the Spanish major:

		S	emester-hours
Spanish	101.	Civilization of Spain	. 4
Spanish	102.	History and Literature of Spain	. 4
Spanish	201.	The Period of Conquest and Colonization by Spain	
Spanish	202.	The Period of Independence to the Present Time	. 4
Spanish	301.	Cervantes	. 4
Spanish	302.	Lope de Vega, Tirso de Molina, Calderón de la Barca.	. 4
Spanish	401.	The Teaching of Spanish in Secondary Schools	. 3
Spanish	402.	Advanced Spanish Grammar and Composition	. 4
Spanish	404.	Modern Spanish Literature: Selected Authors	. 2
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			33

THE FIRST YEAR

Spanish Civilization

SPANISH 101. Civilization of Spain

SPANISH 102. History and Literature of Spain

During the first semester of study, the prospective teacher of Spanish is expected to gain an understanding and appreciation of Spain. The work of the second semester is concentrated on the civilization and literature of Spain up to the seventeenth century. Factual knowledge is aimed at throughout the year, but fluency in speaking Spanish is the prime objective. Grammar and composition are emphasized.

Credit: 4 semester-hours each

THE SECOND YEAR

Hispanic-American Civilization

SPANISH 201. The Period of Conquest and Colonization by Spain SPANISH 202. The Period of Independence to the Present Time

The work in Spanish during the second year is devoted entirely to the acquisition of knowledge about the current culture patterns of South and Central America. Each period is taken up in turn, and attention is specifically directed to changes in the culture patterns produced by the conquest and colonization by Spain and the subsequent struggles for independence. The religious, social, economic, political, and artistic aspects of the life of these periods as well as the

historical background in relation to Spain are carefully treated through Spanish literature. This work is done in Spanish with appropriate attention to grammar and composition.

Credit: 4 semester-hours each

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THE THIRD YEAR

The Spanish Classics

SPANISH 301. Cervantes

SPANISH 302. Lope de Vega, Tirso de Molina, Calderón de la Barca

In the third year the prospective teacher of high-school Spanish is expected to gain a literary understanding and cultural appreciation of the classical age of Spanish literature. While many of the outstanding works of the classical authors are read and discussed, a few masterpieces are studied intensively. The sources, structure, style, versification, and character descriptions are carefully examined against a comprehensive study of the historical background of the 16th and 17th centuries. Special attention is directed during this year to such grammar and forms as are required in class discussions and free composition.

Credit: 4 semester-hours each

THE FOURTH YEAR

Theory and Practice in the Teaching of Spanish

The courses in Spanish during this year are designed to combine all the professionalization of previous Spanish courses with a careful study of the teaching of Spanish in secondary schools. The period of practice teaching allows the prospective teacher to test his scholarly preparation under the guidance of a successful high-school teacher.

SPANISH 401. The Teaching of Spanish in Secondary Schools

For a description of this course, see LANGUAGE 401, page 93.

Credit: 3 semester-hours

SPANISH 402. Advanced Spanish Grammar and Composition

This course develops a complete review of Spanish grammar and composition as a basis for advanced work in the writing of Spanish. It emphasizes syntax and style, the explanation of forms in the light of historical grammar, and includes a study of selected Spanish readings to determine their suitability for high-school use on the basis of diction and grammatical usage.

Credit: 4 semester-hours

SPANISH 404. Modern Spanish Literature: Selected Authors

This course is concerned especially with those Spanish authors whose works are frequently drawn upon for the reading selections in modern Spanish text-

books used in high-school teaching. Its aim is to present current trends in Spanish literature. Particular attention is devoted to the lives of the authors studied and to the effect of the times on the character of their works.

Credit: 2 semester-hours

SPANISH 405. The Romantic Movement

This course aims to present the literary and historical study of the 19th century, the Romantic Movement, after a survey of the different movements in Spanish literature.

Credit: 2 semester-hours

SPANISH 406. Studies in Modern Spanish Literature

This course is concerned with the Renaissance in Spanish literature which began in 1898, following a confused period of political, economic, and social unrest. It traces the literary trends in drama, poetry, and the novel of recent years. Class discussion and individual reports on specific subjects are required.

Credit: 2 semester-hours

SPANISH 407. The New World Before the Coming of the Spaniards

The purpose of this course is to present current knowledge of the remarkable civilizations of the New World (Mayan, Aztec, Incan) as they had developed before the coming of the Europeans placed them under Old World direction. Today it is important that teachers, particularly those of Spanish and social studies, acquire much wider horizons in matters respecting our Hispanic-Amercan neighbors. This course is given in English.

Credit: 2 semester-hours

SPANISH 415. Projects in Spanish and Latin-American Folklore

This course, designed particularly for teachers and students of Spanish, surveys briefly the aims of extra-curricular activities in the field of Spanish teaching and emphasizes especially: (1) the organization of extra-curricular activities, (2) practical instruction in the preparation of materials, songs, dances, costumes, and (3) artistic presentation of the results of the course in a carefully supervised program given on the college campus.

Credit: 2 semester-hours

LANGUAGE

Background Course

The students of all college departments are expected to broaden and intensify their command of English by taking the following course arranged by the Language Department for the junior year. It aims to arouse their intellectual curiosity in the origin, development, and range of language in general, and of English in particular, so that henceforth they will be more word-conscious and their teaching will benefit by an extended and more sensitive use of their mother tongue.

THE THIRD YEAR

LANGUAGE 300. Foundations of Language

For a description of this course, see page 46.

Credit: 2 semester-hours

THE FOURTH YEAR

Professional Courses

Seniors in the Department of Foreign Languages are expected to gain a critical insight into modern methods of foreign-language teaching. An analysis of actual practice motivates the systematic survey of this field of special interest with a theoretical selection of aims and procedures in preparation for the teaching of foreign languages in high schools.

LANGUAGE 401. The Teaching of Foreign Languages in Secondary Schools

The work of this course is focused on such topics as the following: values of foreign language teaching; ultimate and immediate aims in foreign language teaching; survey of the outstanding methods, pronunciation, oral work, reading, grammar, reviews, realia, examinations, tests, supervised study, etc. The course consists of readings and discussions, lesson planning and demonstrations, and or ganization of materials for use in student-teaching.

Credit: 3 semester-hours

LANGUAGE 402. Phonetics

This course aims to give special training in the analysis of speech production from the physiological and acoustical standpoints and in detecting, analyzing, and correcting errors in pronunciation of foreign languages. Students planning to teach French or Spanish are instructed in the use of the accepted symbols of the International Phonetic Association. Modern textbooks in foreign languages are examined for their treatment of pronunciation. This course consists of the making of phonetic charts, work in the phonetic laboratory, continued drill in transcribing passages from foreign languages into phonetic symbols. This course is open to juniors and seniors, majoring or minoring in Spanish or French.

Credit: 2 semester-hours

LANGUAGE 412. Foundations of Language, Advanced Course

This course continues the study of linguistics in general and of our own Indo-European group in particular. It focuses especially upon the origin, history, and development of Latin, French, German, Spanish, and English phonology, morphology, and vocabulary. Through lectures and collateral reading the student is acquainted with the latest research findings in linguistics. Maps and charts are required for the graphic presentation of each unit of work, and an individual report on some phase of this field is presented to the class by every student.

LANGUAGE 415. World Languages

This course presents a practical introduction to the learning of any foreign language. Through the use of International Phonetic Symbols and Linguaphone Records, students acquire skill in the recognition and identification of foreign speech sounds. Ear, lip, and tongue training are combined to insure adequate ability in the pronunciation of foreign sounds with scientific accuracy. The course is designed for all students in the language field.

Credit: 2 semester-hours



THE DEPARTMENT OF MATHEMATICS

The training of teachers of mathematics for junior and senior high schools demands that much care be used in selecting students for such training and that students so selected receive training which emphasizes sound scholarship, a broad cultural background, and an acquaintance with the problems which arise in the teaching of mathematics in the modern secondary school.

Scholarship in mathematics can result only from continued study of mathematics; it cannot result from a mere review of high-school courses. Hence, the course of study in mathematics provides for a study of topics in college mathematics with continual emphasis on their use as a background for teaching. Courses have been selected to the end that the students become proficient in various fields of mathematics.

The training in mathematics in a teachers college should differ from that in a liberal arts college or in an engineering college in a number of ways. Since the student is preparing to teach mathematics to secondary-school pupils, he must not only understand the uses and limitations of formulas, but must also be able to derive them from simpler ideas; he must not only understand fundamental principles, but must also acquire the facility of making them clear to others, of searching out the obstacles that hinder another's understanding. He must not only have a mastery of the topics he is to teach, but must also see them as an integral part of the subject-matter of mathematics, and know the place of mathematics in the history of civilization and its uses in practical life.

The courses offered by the Department of Mathematics have been selected with the following objectives in view:

- 1. To give the student a review of and practice in those topics in mathematics which he will be required to teach. This is best done by having such review an incidental part of the advanced work in mathematics rather than a repetition of high-school subject-matter.
- 2. To professionalize the course so that the student will be conscious of teaching problems and will have abundant practice in logical reasoning and in making lucid explanations.
- 3. To give the student that self-confidence which is the concomitant of a broad knowledge of subject-matter beyond minimum requirements.

- 4. To supply a cultural background and an awareness of the specific contributions which mathematics has made to civilization.
- 5. To make the student aware, through observation and participation in teaching in the College High School, of the character and diversity of the problems arising in teaching mathematics to secondary-school pupils.
- 6. To integrate the work with other courses, particularly science, social studies, and economics, so that the student will realize the effectiveness of mathematics as a tool in solving scientific and sociological problems.

No student should attempt to major in mathematics who has not demonstrated his ability by his high-school work in elementary and intermediate algebra and in plane geometry. The student who has also taken solid geometry, trigonometry, and college algebra will be better prepared for work in the College.

Students who major in mathematics should consult with the Head of the Mathematics Department before selecting a field of minor interest.

The following course requirements constitute the mathematics major:

		Se	emester-hours
Mathematics	101.	Mathematical Analysis, Part I	4
Mathematics	102.	Mathematical Analysis, Part II	4
Mathematics	201.	Calculus, Part I	4
Mathematics	202.	Calculus, Part II	
Mathematics	5	Modern College Geometry	4
Mathematics	302.	Higher Algebra	4
Mathematics	401.	The Teaching of Mathematics in Secondary Schools	
Mathematics	402.	Applications of Mathematics	
Mathematics	404.	Readings and Lectures in Mathematics	2
			33

In addition to the course requirements for the mathematics major as listed above mathematics majors are required to take the following courses:

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*Mathematics 308. The Social and Commercial Uses of Mathematics for Mathematics Majors . . . . . 2 semester-hours 
**Mathematics 408. Elementary Mathematical Statistics . . . . 2 semester-hours
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Mathematics 304 is required of students who have not had solid geometry in high school and is recommended as an elective for others.

Students who anticipate selecting mathematics as a field of minor interest should consult with the Head of the Mathematics Department before beginning such work. The following courses are recommended for all mathematics minors: MATHEMATICS 101, 102, 201, and 202. If solid geometry has not been studied in high school, MATHEMATICS 304 should also be taken.

All students in the College, except mathematics majors, are required to take MATHEMATICS 300 and 400. Mathematics majors take MATHEMATICS 308 and 408 instead of MATHEMATICS 300 and 400.

^{*}Required of mathematics majors in lieu of Mathematics 300 *Required of mathematics majors in lieu of Mathematics 400

THE FIRST YEAR

The mathematics of the first year is organized in one large unit of work. The traditional subjects of college algebra, trigonometry, and analytical geometry are not treated as separate and distinct subjects, resulting in artificial lines of demarcation in the mind of the student, but are interwoven with some of the more elementary portions of calculus, into an integrated course in mathematical analysis. The central idea of the organization is the function concept. The locus concept serves as a secondary theme about which processes, inverse to those previously introduced, are organized.

Elementary mathematical analysis forms an essential part of the required training of the teacher of high-school mathematics. Due attention is given to the professionalization of subject-matter by continued application of knowledge previously gained, by creating a desire for further investigation, by repeated application of the scientific method of thinking, by having the student make careful analyses and explanations, and by showing how certain phases of the work may be transferred to high-school situations. Twenty observations are made in the College High School. Reports of these observations are required. As an integral part of the students' training, this first year of mathematics serves three purposes: it forms a foundation for further work in mathematics; it forms a background course for the investigation of other sciences; and it gives knowledge and training essential to the teacher of high-school mathematics.

MATHEMATICS 101. Mathematical Analysis, Part I

The principal topics are: functions and graphs, linear functions, quadratic functions, polynomial functions, rational and irrational functions, rates of change, differentiation and integration of simple functions, logarithms and logarithmic functions, the theory and use of the slide rule, permutations, combinations and probability, sequences and series. This semester's work is closely correlated with and forms a review and extention of senior high-school mathematics.

Credit: 4 semester-hours

MATHEMATICS 102. Mathematical Analysis, Part II

The chief topics considered are: trigonometric and circular functions, trigonometric formulas, the solution of triangles, inverse circular functions, natural logarithms, exponential and hyperbolic functions, simultaneous equations and determinants, the straight line, loci, the conic sections, polar coordinates, transformation of coordinates and the general second-degree equation in two variables, parametric equations, empirical equations, and an introduction to the analytic geometry of space.

Credit: 4 semester-hours

THE SECOND YEAR

A study of differential and integral calculus is made the second year. The work is a unit and is sequential to that taken the first year. Professionalization is

effected, as in the first year, by emphasis on participation in class discussions by the students with emphasis on clear and concise explanations. Students are required to report on thirty observations in the College High School.

MATHEMATICS 201. Calculus, Part I

A clear understanding of the meaning and uses of the derivative, as well as mechanical facility in the computation of the derivative of algebraic and transcendental functions, are the main objectives of this course. Applications of the derivative are studied in determining the form and properties of curves, in solving problems in maxima and minima, in finding roots of equations, in parametric and polar equations, in curvature and the radius and circle of curvature. Other topics are differentials, the theorem of mean value, and its applications.

Credit: 4 semester-hours

MATHEMATICS 202. Calculus, Part II

The use of integration as a process of summation is applied to elementary problems in finding areas enclosed by plane curves, volumes of solids of revolution, the length of a curve, and areas of surfaces of revolution in both rectangular and polar coordinates. Mechanical facility in integration is promoted by a study of the use of various devices in integration and by instruction in the use of tables of integrals. Other topics studied are centroids, fluid pressure work, and series.

Credit: 4 semester-hours

THE THIRD YEAR

Modern College Geometry is required in the first semester. In this course the student learns more powerful methods and techniques for solving original exercises in geometry and gains a facility in the construction of geometric proofs by analysis which is valuable in teaching high-school geometry. In the second semester a course in Higher Algebra is required. This course provides the student with similar preparation and confidence for the teaching of algebra in the high school.

Professionalization during this year is emphasized by increased demands on the student in making lucid explanations, and in ability to anticipate difficulties in teaching procedures. He now begins to participate actively in the classes in the College High School as an assistant and is expected to help in diagnosing pupil difficulties and in providing remedial practice. Forty reports on observations are required during the year.

MATHEMATICS 300. The Social and Commercial Uses of Mathematics

For a description of this course, see page 48.

MATHEMATICS 301. Modern College Geometry

This course gives the student a thorough preparation for teaching plane geometry. Effective methods of attack in solving problems are carefully analyzed and applied. An intensive well-organized review of high-school geometry emphasizes ways of developing and teaching the more difficult material. This prepares the way for faster progress with new and advanced work, including the more recent developments in plane geometry. Throughout the course special effort is made to correlate the material studied with that of the high school. Representative topics are: the fundamental framework of plane geometry, loci and geometric constructions; fundamental theorems of Ceva, Menelaus, Stewart, Euler, Ptolemy, etc.; homothetic figures, the harmonic range, noteworthy lines and points, systems of circles, and inversion.

Credit: 4 semester-hours

MATHEMATICS 302. Higher Algebra

Among the topics of advanced algebra studied in this course are: a systematic treatment of the foundations of algebra, the development of the number system including complex numbers, the properties of polynomials and methods of solving algebraic equations, the analytic criteria for the constructibility of geometric plane figures, graphs, applications of the calculus and determinants, and related problems in algebraic analysis. At every opportunity this material is correlated with the subject-matter of secondary school mathematics.

Credit: 4 semester-hours

MATHEMATICS 304. Solid Geometry

This course is required of those students majoring or minoring in mathematics who have not had solid geometry in high school, and is an elective for those who desire to review the subject from an advanced point of view. Besides the treatment of the usual theorems, the course emphasizes alternate methods of proof and application of algebra, plane trigonometry, and elementary analysis to solid mensuration. Modification in teaching as suggested by recent commission reports is stressed.

Credit: 2 semester-hours

MATHEMATICS 308. The Social and Commercial Uses of Mathematics for Mathematics Majors

This course covers in general the same content as Mathematics 300, but it presupposes a broader background in mathematics and an ability to cover the work more thoroughly.

Credit: 2 semester-hours

THE FOURTH YEAR

In the fourth year the course in Applications of Mathematics gives the future teacher an effective background in the use of precision instruments. The course in the Teaching of Mathematics in Secondary Schools coordinates and

brings to a focus all of the professionalization of his previous courses. Here his attention is concentrated solely on a careful study of the teaching of mathematics in secondary schools. He becomes acquainted with the literature of the teaching of mathematics and with discussions by leading teachers in mathematical periodicals. In supervised student-teaching the student puts into practice, under expert direction and supervision, in high-school classes, the theories and methods he has studied. Thus, we have the combination of sound scholarship in mathematics and an apprenticeship under successful high-school teachers.

MATHEMATICS 400. Educational Statistics

For a description of this course, see page 48.

Credit: 2 semester-hours

MATHEMATICS 401. The Teaching of Mathematics in Secondary Schools

The student studies the methods of teaching the different units of work in the junior and senior high school. He accompanies this study by observing in the College High School the ways in which these methods are put into practice. He is actively in contact not only with the theory but also with the practice of what he studies. He participates, under the direction of the high-school instructors, in organizing material, in making, administering, and marking tests, and in assisting in experimental work. A study of recent trends in the teaching of mathematics, of noteworthy research, of courses in general mathematics, and of modern texts and tests is included.

Credit: 3 semester-hours

MATHEMATICS 402. Applications of Mathematics

The student is taught how to use and adjust those modern instruments of precision which can be used to motivate the teaching of mathematics in the unior and senior high school. Included among these are the slide rule, transit, extant, planimeter, plane table, solar telescope, and astronomical telescope with equatorial mountings. Such early instruments as the astrolabe, hypsometer, aculum, and optical square are also considered. The student must also make ome of the simpler instruments and devise and solve problems which can be sed in classroom instruction.

Credit: 4 semester-hours

IATHEMATICS 404. Readings and Lectures in Mathematics

Lectures are given upon advanced topics in mathematics and on those phases f mathematics which are finding new applications, especially as they are elated to the secondary field. Besides a mastery of this lecture material, the tudent is held responsible for a written report on an approved topic or on pecific readings on recent mathematical literature.

MATHEMATICS 405. The History of Mathematics

A cultural background in the field of elementary mathematics is furnished by this course. Emphasis is placed on the history of the development of the number systems of elementary mathematics, computational devices, mathematical symbolism, space concepts, and simple logical processes. Other topics treated are: methods of problem solving, historical references in teaching, mathematical recreations, and the biographies of outstanding mathematicians.

Credit: 2 semester-hours

MATHEMATICS 406. Solid Analytic Geometry

A review and extension of the theory of determinants, a study of lines and planes in space, of space-coordinates, transformation of coordinates, loci in space, the sphere, and of quadric surfaces are considered in this course. The study of the general quadric equation in three variables, invariance under motion, and the classification of numerical equations completes the course.

Credit: 2 semester-hours

MATHEMATICS 407. Advanced Calculus

A study of continuity, the theory of limits, the generalized theorem of the mean, and its extension to series with a remainder term is made in this course. Also studied are partial differentiation with applications to tangent planes, normals, envelopes, and approximations; multiple integration with applications to areas, volumes, center of gravity, pressure, moment of inertia, and work; and the solution of ordinary differential equations of the first order with applications.

Credit: 2 semester-hours

MATHEMATICS 408. An Introduction to Mathematical Statistics

This first course covers the usual topics in statistics, using calculus as a major tool in the derivation of formulas. Topics included are: types of data and types of measurement; attributes and variables; graphical representation; measures of central tendency and dispersion; moments; binomial, Poisson, and normal distributions; linear regression and correlation; elements of sampling theory and statistical inference. This course is required of mathematics majors in lieu of MATHEMATICS 400.

Credit: 2 semester-hours

MATHEMATICS 410. Mathematics of Finance

This course introduces the student to the elementary theory of simple and compound interest and leads to the solution of practical problems in annuities, sinking funds, amortization, depreciation, stocks and bonds, installment buying, and building and loan associations. It also discusses the mathematics of life insurance covering the following subjects: the theory of probability as related to life insurance; the theory and calculation of mortality tables; various types of life annuities and insurance policies and reserves. This course is designed

MUSIC 101

to give a helpful background to the mathematics teacher as well as to be an aid to the student of economics and insurance.

Credit: 2 semester-hours

MATHEMATICS 411. Field Mathematics

In this course the student learns how to make a map using the alidade and plane table and how to find heights and inaccessible distances by scale drawings. Simple devices for estimating heights and distances are taught. The use of the surveying transit is explained as well as the use of simple devices, easily made, such as the hypsometer and geometric square. A knowledge of the elementary processes in arithmetic is sufficient background for this course.

Credit: 2 semester-hours

THE DEPARTMENT OF MUSIC

The Department of Music offers a threefold program:

- 1. A major in music education for students who wish to teach music in grades one through twelve.
- 2. A minor in music education for students who wish to teach music in combination with an academic subject in grades five through twelve.
- 3. Music courses as cultural background for students who intend to teach academic subjects in the secondary schools.

The Music Major

The music major prepares the student to teach vocal and instrumental music, music appreciation, and music theory in the elementary and secondary school. The curriculum includes four areas of subject-matter: music history and appreciation, music theory, applied music, and music pedagogy. Students who wish to najor in music are required to have a preliminary conference with the Head of the Music Department at which time they will discuss and demonstrate their qualifications for specialization in this field. Prospective music majors should have performance ability of promise on a primary and a secondary instrument, good musicality, a knowledge of elementary music theory, and give evidence of the erious music study throughout the high-school years.

Instrumental primary students who desire to come to Montclair are urged to rarticipate in choral organizations in high school; voice primary students are urged to study piano throughout the four years of high school.

The following course requirements constitute the music major:

		Se	mester Hours
Music 101.	Sight Reading and Ear Training		2
Music 102.	Advanced Sight Reading and Ear Training		2
	Primary Instrument, Part I		
Music 104.	Primary Instrument, Part II		1
	Secondary Instrument, Part I		
	Secondary Instrument, Part II		
Music 201.	Harmony		4

Music 20 Music 30 Music 40 Music 40 Music 40)3	Advanced Harmony Primary Instrument, Part III Primary Instrument, Part IV String Instruments Woodwind Instruments and Percussion Epochs in Musical Development, Part I Epochs in Musical Development, Part II Secondary Instrument, Part III Secondary Instrument, Part IV Choral Technique Primary Instrument, Part V Primary Instrument, Part VI Orchestration High-School Orchestras and Bands Music Form and Analysis Teaching Music in the Primary Grades, 1-3 Teaching Music in the Intermediate Grades, 4-6 The Teaching of Music in Secondary Schools Primary Instrument, Part VII and Senior Recital Modern Music	4 1 1 1 1 2 2 2 1/2 2 2 2 2 2 2 2 2 2 2 2	
Music 49	99A.	Problems in the Teaching of School Music	2	
		the above required courses, specialized interests of differentiated required music courses as follows:	are	m
Music 31	10A.	Secondary Instrument, Part V		
Music 30	09.	Or	1	
Music 31	10B.	Secondary Instrument, Part VI		
Music 30	08.	Voice for Instrumentalists	1	
Music 33	37.	The Opera		
Music 33	38.	or The Symphony	2	
Music 40	05.	Orchestra Conducting and Score Reading		
Music 42	29.	Or A Cappella Choir and Choral Conducting	2	
In additi	ion f	ive semester-hours in ensemble work are required for		
Ensemble Ensemble		th a major in music.	5	
		Total	62	

Because of the pianistic demands made of choral teachers, voice primaries are required to take three years of secondary piano. Because of lesser pianistic demands made of band and orchestra conductors, instrumental primaries, except piano primaries, are required to take only two years of secondary piano, and Music 308, Voice for Instrumentalists, and Music 309, Brasswind Instruments and Percussion, are taken in lieu of the third year of secondary piano.

In addition, music majors may choose electives in the field of advanced music theory and musicology.

Applied Music

Music majors will choose a primary and a secondary instrument in applied music, one of which shall be piano. Other primary instruments may be organ,

voice, violin, or other band and orchestra instruments. The primary instrument represents the student's greatest talent and accomplishment; the secondary instrument, lesser talent and accomplishment. Every music major will give a graduation recital on his primary instrument in the senior year. Students receive a one-hour private lesson on the primary instrument and a half-hour private lesson (or equivalent class lesson) on the secondary instrument each week. Credit in applied music is based upon accomplishment.

Entrance Requirements in Primary Instruments

1. Piano

a. All major and minor harmonic scales, four octaves, hands together and I, IV, and V chords and inversions in each key

b. A little prelude or two part invention by J. S. Bach

c. An easy sonata by Haydn, Mozart, or Beethoven, played from memory d. A composition by a Romantic or modern composer of the student's choice

2. Voice

a. A good natural voice above the average in quality and range; good intonation and clear diction

b. Two songs of the student's choice selected from standard voice repertory such as a simple art song, an air from an oratorio, or an aria from an opera, one of which shall be sung in English

c. A minimum of two years of piano study

d. Knowledge of French or German

3. Violin

a. All major and minor scales, three octaves

b. An etude selected from Dont. Op. 37 or Kreutzer, Number 2-20, or equivalent

c. A first movement selected from the following concertos: Viotti, Numbers 22, 23; Deberist, Number 9; or Vivaldi, A minor

d. Two movements from a sonata by Handel, Corelli, or Tartini

Entrance requirements for other primary instruments may be had upon request.

Entrance Requirements in Piano, Secondary Instrument

1. Evidence of the satisfactory completion of one of the following:

a. Ferdinand Beyer's Elementary Instruction Book

b. John Thompson's Modern Course for the Piano, First Grade Book

c. Raymond Burrows' Piano Series for the Older Beginner

- 2. All major scales, sharps and flats, hands together, two octaves
- 3. Any two of the following compositions played from memory:
 - a. Minuet, G. Bach, Classic Albums, Book I, B. F. Wood Music Co.

b. Sonatina C Major, Op. 36, No. 7, Clementi c. Melody, Schumann, Classic Albums, Book I

Entrance requirements for other secondary instruments may be had upon request.

A student will be admitted with a condition in piano, secondary instrument, provided he has compensatory performance abilities on other instruments. A condition in secondary piano, however, must be removed during the first year. A student will not be permitted to enter the sophomore year until the condition has been removed. Instruction in sub-credit bearing piano will be taken at the student's expense.

Entrance Requirements for Student Teaching

Regardless of whether the piano is the primary or secondary instrument, all music students, both majors and minors, are required to meet the following minimum standards in piano with an average grade of not less than C before they start student teaching:

- 1. Give evidence of a working knowledge of practical keyboard harmony; ability to harmonize and transpose a simple melody; chord with primary chords in any key; and improvise basic rhythmic patterns.
- 2. Sing and play five songs suitable for classroom use in the intermediate grades.
- 3. Play singly and in combination the voice parts of a choral number suitable for use in the secondary school.
- 4. Read at sight an easy folk song with accompaniment.
- 5. Play eight community songs, three of which shall be The Star-Spangled Banner, America, and America the Beautiful.

C. O. S. Howe Memorial Organ Scholarship

In 1939 Mrs. C. O. S. Howe gave the college a three-manual Austin pipe organ, a library of organ music, and a fund for a perpetual scholarship in organ in memory of her husband, the late Dr. C. O. S. Howe.

- The C. O. S. Howe Memorial Organ Scholarship is awarded annually to a qualifying student. The requirements are:
 - 1. At least one year's previous study on the pipe organ
 - 2. Sufficient pianistic skill, developed and maintained, to profit by specialized instruction on the pipe organ
 - 3. A knowledge of elementary music theory
 - 4. An active interest in choral music

Application for the scholarship may be made to the Head of the Music Department.

Ensemble

All music majors are required to participate in two musical organizations throughout the four years. In accordance with ability, the student may choose the a cappella choir, orchestra, band, music workshop, or opera workshop. He will participate continuously throughout the four years in the organization representing his primary instrument. He may alternate membership in other organizations from year to year. Credit for participation in these organizations is not given for the freshman year. Thereafter, a maximum of five semester-hours may be so earned. Students may not participate in these organizations, either with or without credit, without securing special permission from the Head of the Music Department.

Recitals

Faculty recitals and Senior Graduation recitals are given on Sunday evenings in Edward Russ and Chapin Halls. Student recitals are given bi-monthly on Friday afternoons. All music students are required to perform in recitals as directed by their applied music teachers and to attend at least two-thirds of these recitals.

Music 105

The Music Minor

The music minor prepares the student to teach music in combination with academic subjects in the secondary school. The music minor is begun in the sophomore year and presupposes a major in an academic subject. English and social studies are the subjects most frequently combined with music.

Students who wish to minor in music should consult the Head of the Music Department early in the freshman year in order to make up any deficiencies. Music minors are required to meet a minimum standard in piano and to participate in one musical organization throughout the three years.

The following courses are required of all music minors: 101, 102, 201, 207, 208, 301, 306, and 401.

Music for the General Student

The cultural obligation of the teacher has long been recognized. Teacher education has become increasingly a matter of providing rich cultural backgrounds upon which the teaching of a given subject may be projected. For this reason all students are required to take MUSIC 100, Music Appreciation. In addition, the general student may elect courses in music history and music theory in the junior and senior year. Whenever possible, the content of these courses is related to the student's major field.

All general students are given a music placement test. On the evidence of this test, they are advised to participate in the musical organizations of the College such as the *a cappella* choir, orchestra, band, music workshop, or opera workshop.

THE FIRST YEAR

The student begins his career as a music major with a course in Music Appreciation. In addition, he takes Sight Reading and Ear Training, the primary and secondary instruments, and participates in the various musical organizations of the College.

MUSIC 100. Music Appreciation

For a description of this course, see page 46.

Credit: 1 semester-hour

MUSIC 101. Sight Reading and Ear Training

This course aims to develop basic skills in music reading. It includes notation and terminology, major and minor scales, intervals, triads, ear and eye recognition of commonly used tonal and rhythmic groups, and written dictation of a standard repertory of thematic materials. This course meets three hours weekly and is credited on a laboratory basis.

MUSIC 102. Advanced Sight Reading and Ear Training

This course is a continuation of MUSIC 101. It includes a study of the more difficult tonal and rhythmic groups, reading parts in various clefs, harmonic ear-training, and dictation. The subject-matter is taught through standard song literature, including folk and art song, choral and oratorio. This course meets three hours weekly and is credited on a laboratory basis.

Prerequisite: MUSIC 101

Credit: 2 semester-hours

MUSIC 103. Primary Instrument, Part I

Credit: 1 semester-hour

MUSIC 104. Primary Instrument, Part II

Credit: 1 semester-hour

MUSIC 105A. Secondary Instrument, Part I

Credit: 1/2 semester-hour

MUSIC 105B. Secondary Instrument, Part II

Credit: 1/2 semester-hour

MUSIC 130A and B. A Cappella Choir

MUSIC 131A and B. Orchestra

MUSIC 132A and B. Band

The student selects two of the above organizations. Each organization meets two hours weekly.

Credit: O semester-hour

THE SECOND YEAR

In the second year the music major continues work on the primary and secondary instruments, takes Harmony and Epochs in Musical Development, and begins the study of orchestra and band instruments.

MUSIC 201. Harmony

This course aims to give a practical treatment of harmony as related to the classroom. It includes a study of rhythms, intervals, primary and secondary triads, seventh chords, inversions, diatonic and chromatic progressions. Special attention is given to the functional aspects of harmony as applied to the piano keyboard in the harmonization of melodies, transposition, and improvisation of accompaniments.

Prerequisite: MUSIC 102

MUSIC 202. Advanced Harmony

This course is a continuation of MUSIC 201. It includes a study of foreign chords, altered chords, modulation, enharmonic tones, and the rhythmic and harmonic principles of musical form. Application is made in four-part writing, in harmonic analysis, and on the piano keyboard.

Prerequisite: MUSIC 201

Credit: 4 semester-hours

MUSIC 203. Primary Instrument, Part III

This course is a continuation of Music 104

Credit: 1 semester-hour

MUSIC 204. Primary Instrument, Part IV

Credit: 1 semester-hour

MUSIC 205. String Instruments

This course develops elementary playing skills on violin, viola, cello, and string bass. The materials and procedures used are those recommended in the teaching of these instruments in the classroom. This course meets two hours weekly and is credited on a laboratory basis.

Prerequisite: MUSIC 102

Credit: 1 semester-hour

MUSIC 206. Woodwind Instruments and Percussion

This course develops elementary playing skills on flute, oboe, clarinet, and other woodwind instruments. It includes techniques on the snare drum. The materials and procedures used are those recommended in the teaching of these instruments in the classroom. This course meets two hours weekly and is credited on a laboratory basis.

Prerequisite: MUSIC 102

Credit: 1 semester-hour

MUSIC 207. Epochs in Musical Development, Part I

This course makes a study of the medieval and polyphonic epochs in musical development. It deals with music in Greek culture, music of the early Christian Church, secular music makers of the Middle Ages, music of the Renaissance, the rise of instrumental music, and the growth of choral polyphony culminating in the works of Bach and Handel. Students make a chronological chart showing parallel developments in music, art, literature, and history.

Credit: 2 semester-hours

MUSIC 208. Epochs in Musical Development, Part II

This is a continuation of MUSIC 207, and makes a study of the classic and romantic epochs in musical development. It includes study of the music of Haydn, Mozart, Beethoven, Schubert, Schumann, Brahms, Berlioz, and Liszt.

Special attention is given to directed listening and to building an ear repertory of selected compositions.

Prerequisite: MUSIC 207

Credit: 2 semester-hours

MUSIC 210A. Secondary Instrument, Part III

This is a continuation of MUSIC 105B.

Credit: 1/2 semester-hour

MUSIC 210B. Secondary Instrument, Part IV

Credit: 1/2 semester-hour

MUSIC 230A and B. A Cappella Choir

MUSIC 231A and B. Orchestra

MUSIC 232A and B. Band

MUSIC 233A and B. Music Workshop

MUSIC 234A and B. Opera Workshop

The student selects two of the above organizations. Each organization meets two hours weekly and is credited on a laboratory basis.

Credit: 1/2 semester-hour each

THE THIRD YEAR

The first two years of the music major curriculum have been devoted primarily to developing skills in applied music and to pursuing sequential courses in music theory and history. In the third year the skills and knowledge thus gained are applied in professionalized subject-matter courses in choral and instrumental school music.

MUSIC 301. Choral Technique

This course aims to develop the voice of the student through the singing of choral material suitable for use in the high school. It includes a study of the principles of tone production, diction, phrasing, and interpretation, illustrations of which are made in graded song materials for various vocal combinations. Special attention is given to testing and classification of voices, balance of parts, rehearsal routine, accompaniment playing, and conducting. This course includes observation and participation in the College High School Chorus.

Prerequisite: MUSIC 202

Credit: 2 semester-hours

MUSIC 303. Primary Instrument, Part V

This course is a continuation of MUSIC 204.

MUSIC 304. Primary Instrument, Part VI

Credit: 1 semester-hour

MUSIC 305. Orchestration

This course makes a study of the range, tuning, transposition, and use of all instruments in the orchestra and band. It includes practical arranging for various combinations of instruments and the completion of a full score for band or orchestra. Special attention is given to the playing and transposition of parts at the keyboard.

This course includes observation in the College Orchestra.

Prerequisite: MUSIC 206

Credit: 2 semester-hours

MUSIC 306. High-School Orchestras and Bands

This course deals with the organization of high-school orchestras and bands, selection, purchase and care of instruments, evaluation of teaching materials, techniques of class instruction, substitution of parts, elementary conducting, rehearsal routine, marching band, and twirling. Students learn a repertory of music suitable for use in high-school orchestras and bands. This course includes observation and participation in the College High School orchestra.

Prerequisites: MUSIC 205, 206

Credit: 2 semester-hours

MUSIC 307. Music Form and Analysis

This course provides application of all branches of music theory, history, and performance in the analysis of vocal and instrumental forms. It includes a study of two and three part song forms, the dance suite, rondo, variation, and sonata. The materials used in this course are selected with reference to further use in the teaching of music appreciation in the classroom. This course meets three hours weekly and is credited on a laboratory basis.

Prerequisite: MUSIC 202

Credit: 2 semester-hours

MUSIC 308. Voice for Instrumentalists

This course is conducted as a laboratory class to provide instrumentalists with basic voice training. It is concerned primarily with the development of the individual voice and includes a study of the principles of tone production, breathing, diction, phrasing, and interpretation. The song material and teaching procedure used in this course are those recommended in the teaching of voice class in the senior high school. This course meets two hours weekly and is credited on a laboratory basis.

Prerequisite: MUSIC 102

MUSIC 309. Brasswind Instruments and Percussion

This course develops elementary playing skills on trumpet, horn, trombone, and other brasswind instruments. It includes techniques on bass drum, tympani, cymbals, and bells. The materials and procedures used are those recommended in the teaching of these instruments in the classroom. This course meets two hours weekly and is credited on a laboratory basis.

Prerequisite: MUSIC 206

Credit: 1 semester-hour

MUSIC 310A. Secondary Instrument, Part V

This is a continuation of MUSIC 210B.

Credit: 1 semester-hour

MUSIC 310B. Secondary Instrument, Part VI

Credit: 1 semester-hour

MUSIC 320. Teaching Music in the Primary Grades, 1-3

This course deals with the principles, materials, and methods used in teaching music in the primary grades. It provides an integrated program of child voice and song repertory; remedial aids for non-singers, rhythms, dramatic play, and creative expression; discriminating listening; the development of reading readiness; the use of rhythm, melody, and harmony instruments. Emphasis is given to the contribution of music to the social adjustment of children. This course includes observation and participation in the primary grades.

Credit: 3 semester-hours

MUSIC 321. Teaching Music in the Intermediate Grades, 4-6

This course deals with the principles, materials, and methods used in teaching music in the intermediate grades. It continues those musical activities begun in the primary grades and introduces music reading, part singing, the changing voice, and the integration of music with other subjects in the curriculum. Special attention is given to the beginning choral and instrumental program and the inter-relation of these two areas of musical experience. This course includes observation and participation in the intermediate grades.

Credit: 3 semester-hours

MUSIC 330A and B. A Cappella Choir

MUSIC 331A and B. Orchestra

MUSIC 332A and B. Band

MUSIC 333A and B. Music Workshop

MUSIC 334A and B. Opera Workshop

The student selects two of the above organizations. Each organization meets two hours weekly and is credited on a laboratory basis.

Credit: 1/2 semester-hour each

Music 111

Music 337. The Opera

This course makes a study of representative Italian, French, and German operas. It includes a class analysis of each opera and the illustration of its principal numbers by means of recorded music and the piano. Special attention is given to those operas presented in the junior performances at the Metropolitan Opera, New York City.

Credit: 2 semester-hours

MUSIC 338. The Symphony

This course makes a study of representative symphonies, orchestral suites, overtures and tone poems by classic, romantic, and modern composers. Musical illustrations are given by means of recorded music and the piano. The content of this course is related to the Youth Concerts at Carnegie Hall, New York City.

Credit: 2 semester-hours

THE FOURTH YEAR

In the first semester of the fourth year the student gives his graduation recital in his primary instrument and completes the required courses in Modern Music and The Teaching of High School Music prior to student teaching. Upon return from student teaching he carries his professional preparation further in the workshop work, in High School Music, and in differentiated required courses in choral and instrumental music.

MUSIC 401. The Teaching of Music in Secondary Schools

This course deals with the aims, content, and procedure in the teaching of music in the junior and senior high school. It includes a study of the adolescent voice, the listening lesson, general and elective music courses, extracurricula music activities, and special programs. Lesson plans and units of work are prepared and presented for criticism.

This course includes observation and participation in the College High School.

Credit: 3 semester-hours

MUSIC 402. Primary Instrument, Part VII and Senior Recital

This course is a continuation of MUSIC 304.

Credit: 2 semester-hours

MUSIC 405. Orchestra Conducting and Score Reading

This course aims to develop skills in orchestra conducting and score reading. It includes a study of the particular type of ear training needed in conducting, the technique of the baton, score reading, and interpretation. A special feature of this course is the presentation of a large amount of musical examples taken from standard repertory which contain practically all technique.

nical and psychological problems which face the conductor. Practical experience in conducting is given in the College High School Orchestra and the College Orchestra.

Prerequisite: MUSIC 305

Credit: 2 semester-hours

MUSIC 406. Modern Music

This course aims to interpret modern music in terms of the social, political, and cultural life of our times. It includes a study of the music of Debussy, Richard Strauss, Schoenberg, Stravinsky, De Falla, Hindemith, Bartok, Shostakovich, and others. Special attention is given to the relation of modern music to other forms of modern art expression.

Credit: 2 semester-hours

MUSIC 407. The Development of the Opera

This course deals with the origin, development, and characteristics of opera in the Italian, French, German, and Russian schools. Class analyses are made of representative operas of these schools. The content of this course is related to the Saturday afternoon broadcasts from the Metropolitan Opera, New York City. Special attention is given to building an ear repertory of operatic music heard over the radio.

Credit: 2 semester-hours

MUSIC 408. Wagner Music Dramas

This course deals with the operas and music dramas of Richard Wagner. It includes a study of Wagner's artistic ideals and their application to his compositions. Special attention is given to those works which have their sources in great literature, as the Ring of the Nibelung, Parsifal, and Tristan and Isolde. This course carries field work at the Metropolitan Opera, New York City.

Credit: 2 semester-hours

MUSIC 409. Counterpoint

This course aims to provide a practical treatment of counterpoint for music students. It includes analysis of the works of the sixteenth century masters of vocal polyphony with enough of original work to insure a grasp of the principles involved. Functional aspects are stressed in the writing of inner voice parts, descant, round, and canon.

Prerequisite: MUSIC 202

Credit: 2 semester-hours

MUSIC 410. Composition

This course aims to develop the creative power of the student in the composition of small vocal and instrumental forms. Special attention is given

MUSIC 113

to the functional aspects of composition in word setting, writing accompaniments, and improvisation. Selected compositions are performed in concert at the close of the course.

Prerequisites: MUSIC 202

Credit: 2 semester-hours

MUSIC 413. Masters of the Symphony

This course aims to provide the student with an understanding and appreciation of the classic and romantic symphony through the study of the symphonies of Haydn, Mozart, Beethoven, Schubert, Schumann, and Brahms. The content of this course is related to the weekly broadcasts of the Philharmonic Symphony Orchestra of New York.

Credit: 2 semester-hours

MUSIC 414. Modern Symphonic Forms

This includes a study of the post-romantic symphonies of Bruckner, Mahler, Dvorak, Franck, Tschaikowsky, and Sibelius; the symphonic poems of Strauss, Smetana, and Debussy; and the orchestral suites of Rimsky-Korsakoff, Ravel, and Stravinsky. Special attention is given to building an ear repertory of symphonic music heard over the radio.

Credit: 2 semester-hours

MUSIC 418. The Music of Russia

This course provides a survey of Russian music from the Czarist régime down to the modern Soviet. It aims to interpret Russian music in terms of the social, political, and cultural forces which have shaped it, and includes study of the music of Glinka, Balakerif, Borodin, Cue, Mussorgsky, Rimsky-Korsakoff, Tschaikowsky, Stravinsky, and Shostakovich. Because of the social implications, this course is particularly recommended to students of the social studies.

Credit: 2 semester-hours

MUSIC 420. The Art Song

This course provides a survey of the art song and includes a detailed study of the art songs of Beethoven, Schubert, Schumann, Brahms, Wolf, and Strauss. Special attention is given to the relation of music and poetry. A feature of this course is the performance of art songs by guests of the class and attendance at art-song recitals in New York City.

Credit: 2 semester-hours

MUSIC 422. Chamber Music

This course provides a survey of chamber music and includes a detailed study of the string trio, quartet, and quintet by classic, romantic, and modern composers. The content of this course is related to the Sunday afternoon broadcasts of the New Friends of Music and Frick Art Museum concerts in New York City.

MUSIC 423. Choral Masterworks

This course provides a survey of choral masterworks from Palestrina to Stravinsky. It includes a detailed study of Bach's B Minor Mass, St. Matthew Passion. Handel's Messiah, Beethoven's Missa Solemnis; Mendelssohn's Elijah; Verdi's Requiem and other great choral works. The content of this course is related to the current musical season in New York City.

Credit: 2 semester-hours

MUSIC 424. A Survey of Wind Instrument Music

This course includes a survey of music for solos, small ensembles, and full band with emphasis on the literature available for brass and wood-wind players in high school. Members of the college band are available as a laboratory group so that the performance of all music under consideration is possible. Special attention is given to the music originally composed for wind instruments. New music for all publishers is available for examination and evaluation. The content of the course is determined in part by the needs of the teachers in the field.

Credit: 2 semester-hours

MUSIC 425. Music of the Romantic Period

This course deals with the romantic spirit in music as expressed in the works of Schubert, Schumann, Mendelssohn, Chopin, Berlioz, Liszt, and others. It includes a study of program music, piano and song literature, and the rise of national schools of musical composition. Representative works are studied through performance, recordings, and radio listening. Special attention is given to parallel aspects of Romanticism in literature and the visual arts.

Credit: 2 semester-hours

MUSIC 426. Survey of Music Literature

This is a survey course in Music Literature and includes a study of folk song, art song, oratorio, opera, idealized dance forms, instrumental suite, sonata, symphony, and symphonic poem. Abundant use of musical illustration, directed listening, and music making acquaint the student with great masterpieces of music which should be the possession of every generally cultured person. This course is designed for the general student and aims to make intelligent and appreciative consumers of music. It is a non-technical course and attempts to make intelligent and appreciative radio-listeners and concert goers. Special attention is given to the relation of music to English literature and the social studies.

Credit: 2 semester-hours

MUSIC 428. Music of Twelve Great Nations

This course aims to increase understanding among people through a study of the folk and related art music of twelve great nations. At a time of national tensions music crosses boundary lines and tends to unite peoples. Special attention is given to the social, economic, political, and cultural backgrounds of the

MUSIC 115

music of these nations. Because of the social implications of this music this course is recommended particularly to teachers of the social studies. Musical illustrations are given at the piano, through group singing, and through recordings.

Credit: 2 semester-hours

MUSIC 429. A Cappella Choir and Choral Conducting

This course deals with the theory and practice of the *a cappella* choir. It includes a study of the principles of group tone production, phonetics as related to singing, tuning, posture, techniques of choral conducting, interpretation, and score reading. A feature of this course is the study of a selected list of choral literature suitable for use in school, church, and community. Outstanding students are given an opportunity to conduct the College *A Cappella* Choir.

Prerequisite: MUSIC 301

Credit: 2 semester-hours

MUSIC 430A. A Cappella Choir

MUSIC 431A. Orchestra

MUSIC 432A. Band

MUSIC 433A. Music Workshop

MUSIC 434A. Opera Workshop

The student selects two of the above organizations. Each organization meets two hours weekly and is credited on a laboratory basis.

Credit: 1/2 semester-hour each

MUSIC 499A. Problems in the Teaching of School Music

This is a post-student teaching course. It aims to (1) evaluate student-teaching experiences; (2) give an opportunity to the student to share with his classmates the problems encountered in student teaching and to seek a possible solution for the same; (3) meet shortages in teacher preparation not provided for in previous courses; (4) give the student a unified view of school-music education before he enters the teaching field. The content of this course is determined largely by the expressed needs of the students.

Credit: 2 semester-hours

MUSIC 499B. Workshop in School Music

This course is designed primarily for music teachers-in-service who wish to work out projects for use in their respective schools. The content of this course is determined by needs in the field. It may include folk-song dramatizations, small vocal and instrumental ensembles, the integration of music with other subjects in the curriculum, music for boys, visual aids in music pageants, festivals, and materials for special programs. This course provides the teacher with a number of units of work suitable for classroom use.

THE DEPARTMENT OF SCIENCE

Students who are interested in preparing themselves to teach science in high school should consider carefully the present-day requirements for this kind of work. As a result of careful investigations we have extensive information concerning the activities of science teachers in secondary schools. It is not wise for a student to take work in one science only since full-time teaching positions in a single subject are seldom open to a first-year teacher. Most beginners teach two or more science subjects and often a non-science subject as part of the instructional load. It is, therefore, required that a student major is one branch of science and minor in another.

Since it is found by careful investigation that mathematics appears more frequently than any other subject in the combinations of subjects taught by science teachers, students specializing in science should plan to include as many mathematics courses as possible in the undergraduate program.

The following course requirements constitute the science major:

	Semester-hours
Biology 101. General Botany, Part I	4
Biology 102. General Botany, Part II	4
Biology 201. General Zoology, Part I	
Biology 202. General Zoology, Part II	4
Biology 203. Introduction to Field Biology	
Chemistry 101. General College Chemistry, Part I	4
Chemistry 102. General College Chemistry, Part II	4
Chemistry 405. Organic Chemistry, Part I	4
Chemistry 406. Organic Chemistry, Part II	4
either Biology 402. Mammalian Anatomy and Histology	4
and Biology 409. Human Physiology	4
or Chemistry 202. Analytical Chemistry: Quantitative Analysis	
and Chemistry 203. Analytical Chemistry: Applied Quantitative	
Analysis	
Physics 101. General College Physics, Part I	4
Physics 102. General College Physics, Part II	4
Physics 402. Advanced Electricity	4
Science 401. The Teaching of Science in Secondary Schools	3
Science 404. Problems in the Teaching of Science	2
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In addition to the course requirements for the science major as listed above science majors are required to take the following course:

*Mathematics 101. Mathematical Analysis, Part I 4 semester-hours

Students who major in another department and minor in a science field secure approval of the minor program by consultation with the Chairman of the Science Department.

In addition to the minimum program as outlined above the science majors have a regular program of visits to the high-school science courses in the College High School as follows:

^{*} Required of science majors in lieu of Science 100A

Freshman Year One visit each week during the school year in junior-highschool science classes

Sophomore Year One visit each week in the high-school biology course

Junior Year Two visits each week in the chemistry and physics classes

Senior Year In the fall semester seniors pursue two high-school observations by special assignments in the six-year science program.

THE FIRST YEAR

The first year is planned to give the student an insight into the role that science has played and is still playing in the drama of life. Specialization during this year begins with work in biology.

SCIENCE 100A. Survey of Physical Science

For a description of this course, see page 47.

Credit: 4 semester-hours

SCIENCE 100B. Survey of Biology

For a description of this course, see page 47.

Credit: 4 semester-hours

SCIENCE 100C. The Earth Sciences

For a description of this course, see page 47.

Credit: 2 semester-hours

BIOLOGY 101 and 102. General Botany (Morphology and Physiology of Flowering and Non-Flowering Plants)

This course acquaints the student with the methods and tools of science and develops an understanding of the importance of plants to mankind. Morphology and physiology of the cell and of the plant as a whole are considered first. A survey of the plant kingdom with emphasis on structural development and economic importance follows in the second semester.

Credit: 4 semester-hours each

THE SECOND YEAR

The science work in this year is planned for both students majoring in the department and for those minoring in the department. Those minoring in the department are advised to take BIOLOGY 101 and 102, or CHEMISTRY 101 and 102, or PHYSICS 101 and 102.

BIOLOGY 201 and 202. General Zoology (Biology of Invertebrates and Vertebrates)

This course in general zoology is designed to give students a broad under-

standing of the important facts regarding animal life that should be of interest to them and to those whom they are to instruct. Students are taught the peculiarities of structure and physiology of different animal types, and this knowledge is employed as a working basis for deductions made regarding the taxonomy, the economic importance, and the probable course of evolution of the many diverse forms. Particular emphasis is given to the problems connected with man's relations to his environment.

Credit: 4 semester-hours each

CHEMISTRY 101 and 102. General College Chemistry

The course provides opportunity for mastering the fundamentals of chemistry, for understanding the numerous and far-reaching effects of contributions of chemistry to modern living, for training in scientific method, for developing facility in taking and utilizing laboratory notes, and for learning to use standard reference books. The laboratory contains many experiments of value for demonstration in high-school chemistry. A major portion of the second semester's laboratory work is qualitative analysis. Accompanying such laboratory assignments are supplementary questions requiring reading of library reference books in chemistry.

Credit: 4 semester-hours each

BIOLOGY 203. Introduction to Field Biology

In this required course, the students live for ten days at the New Jersey State School of Conservation in the Stokes State Forest where they have the outdoors as their laboratory. Field trips are made to various types of habitats in order to acquire an understanding of the meaning and significance of a "balanced outdoor society." What occurs when this "balance" is disturbed is observed, and methods of and reasons for it are discussed. Taxonomy, ecology, and conservation are stressed during this concentrated period of outdoor living.

Credit: 2 semester-hours

THE THIRD YEAR

The work in the third year is planned for those who major or minor in science and for those who wish to choose electives in the field of science.

CHEMISTRY 405. Organic Chemistry

The course covers the chemistry of carbon compounds and gives increased facility and experience in manipulating complicated chemical apparatus. It treats of the role of chemistry in life processes, including the synthesis and adaptation of carbon compounds in industry, in medicine, and in daily living. The first semester's work covers the chemistry of simple chain compounds and includes fats and carbohydrates.

CHEMISTRY 406. Organic Chemistry

The work of this semester covers the chemistry of multiple functional chain compounds, the ring compounds, proteins, vitamins, hormones and the application of these compounds in industry, in foods, and in medicine.

Credit: 4 semester-hours

PHYSICS 101 and 102. General College Physics

A study of mechanics of fluids and solids, properties of matter, and heat energy is followed in the second semester by a consideration of sound, theories of light, and electricity and magnetism. The course consists of demonstrations, lectures, discussions, problem-solving, and laboratory experiments.

Credit: 4 semester-hours each

THE FOURTH YEAR

All students majoring in the department are required to take SCIENCE 401, The Teaching of Science in Secondary Schools. This course, together with an increased amount of observation and participation in the College High School and with courses in the Integration Department, serves as a means of coordinating the entire work of the department and of preparing the student for the work in supervised teaching he is to do in the succeeding semester. The staff members of the department cooperate with the Integration Department in supervising this work.

SCIENCE 401. The Teaching of Science in Secondary Schools

The chief purposes of this course are: to review the educational objectives of science in public schools; to consider a program of instruction planned for all grades of the public-school system; to study the chief aids to instruction such as texts, manuals, workbooks, tests, and materials for the enrichment of teaching; to make a critical review of standards of classroom and laboratory instruction; to observe junior-high-school classes at work in science; and to participate in classroom activities in biology, chemistry, and physics prior to student-teaching. This course is required of all science majors.

Credit: 3 semester-hours

SCIENCE 401D. The Teaching of Aviation in Secondary Schools

This course covers the study of state aviation programs, texts, bulletins, free material for school use, demonstration equipment, tests, working models, visual aids, and references needed to teach aerodynamics, aircraft engines, meterology, navigation, and aircraft communication in high schools. Field trips to airports and aviation industries are included.

SCIENCE 404. Problems in the Teaching of Science

When a student has completed the assignment in student-teaching in a public high school in the State of New Jersey and has accumulated some experience with the problems of high-school science instruction, he returns to the college campus for an intensive study of a limited number of problems in a single field of science. The student concentrates his attention on general science, biology, chemistry, or physics for this period. This course is mainly a study of the published investigations dealing with curriculum construction, evaluation of current practices in junior and senior high-school courses, and the psychology of learning in science.

Credit: 2 semester-hours

ELECTIVES

SCIENCE 405. Field and Laboratory Studies in Science

This integrated course is designed to show the relationship in the geological rock formations, the types of soil, water patterns, plant communities, and animal inhabitants in northern New Jersey, and the effects on human occupations. The field trips are for the purpose of gathering data and materials for intensive work in the laboratory. The experiments are designed to give the student acquaintance with the science of common but possibly unstudied features of the landscape; e. g., soils are reproduced in profile and examined microscopically, physically, and chemically; water from a variety of sources is tested for biological and chemical impurities; the census of plant and animal inhabitants of typical areas is associated with relevant factors in the environment. Discussions precede and follow the field and laboratory work to establish the probable history of the area and to suggest the probable trend, whether advancing or retrogressing, of its development. Stress is placed on the kinds of human control in specific communities which would best serve their progress.

Students are asked to submit an analysis of the geological and biological features of some known community, based on the skills and principles involved in the course. Some other objectives of the course include an understanding of the organization of school museums for learning purposes, the making of ecological maps and illustrating them with photographs and diagrams, and the techniques of ecological field trips. Two instructors, a chemist and a biologist, collaborate in giving this course.

Prerequisite: Proficiency in biology and chemistry

Credit: 4 semester-hours

SCIENCE 410. Junior-High-School Science Demonstrations

This course covers the methods of experimental instruction in grades seven, eight, and nine. A detailed study is made of about three hundred demonstrations.

SCIENCE 121

SCIENCE 411. Problems in Field Studies in Science

In this course each student selects a phase of field science in which he does advanced research under the guidance of the instructor. Plant ecology, birdlife, pond life, fungi, tree diseases, and insect life are a few of the areas from which the student may choose.

Prerequisites: Field Studies in Science or its equivalent plus at least 12 points of biology

Credit: 2 semester-hours

SCIENCE 412. Field Studies in Science: Biological

Emphasis in this course is given to the ecology, life-history, and identification of plant and animal communities (terrestrial and aquatic) with an introduction to their conservation.

Credit: 2 semester-hours

SCIENCE 413. Field Studies in Science: Physical

Emphasis in this course is given to local and New Jersey geology, minerals, soils, and waters, with emphasis on the chemical and physical aspects of soil and water. Field trips are taken through the Kittatinny Mountains and to the Delaware Water Gap.

Credit: 2 semester-hours

SCIENCE 414. Conservation of Plants and Animals

The social, economic, and ecological implications of plant and animal conservation are considered together in this course. Discussion periods are interspersed with field trips to forest and wildlife management areas. Cooperating experts from state and federal agencies bring special contributions in their fields. Visual aids are used extensively.

Credit: 2 semester-hours

SCIENCE 415. Conservation of Soil and Water

The social, economic, and ecological implications of soil and water conservation are considered together in this course. Discussion periods are interspersed with field trips to selected areas. Outside experts bring special contributions in their fields. Visual aids are used extensively.

Credit: 2 semester-hours

SCIENCE 416. Problems in Conservation

In this course, a student or a group of students selects a phase of conservation in which he or the group does original research, either at the School of Conservation or within New Jersey. The research may be done any time during the summer with the approval of the instructor. This course is intended primarily to encourage individuals or groups from institutions of higher learning in New Jersey to use the School of Conservation as a base for research in conservation. Enrollment is limited and subject to advanced approval. Fees are determined by the number of hours of credit allowed and the number of days or weeks spent in research.

Credit: To be determined by length of stay and nature of problem

SCIENCE 417. Science Problems in Conservation

This course is designed for students who already have a background in science and who wish to organize units of instruction dealing with conservation problems in their own immediate environment. By utilizing visiting experts, the rich environment of the camp, and the library resources each student can prepare materials dealing with the relation between science and conservation, suitable for use with pupils in the schools of New Jersey.

Credit: 2 semester-hours

BIOLOGY 402. Mammalian Anatomy and Histology

A study is made of the gross structure of a typical mammal and of the structural peculiarities of its various tissues. This course prepares the student for the study of human physiology.

Prerequisites: BIOLOGY 201 and 202

Credit: 4 semester-hours

BIOLOGY 406. Animal Histology

This course includes a careful study of histological technique as illustrated by preparations made from various animal tissues.

Prerequisites: BIOLOGY 201 and 202

Credit: 4 semester-hours

BIOLOGY 407. Comparative Embryology

A study is made of the stages in development and factors influencing the development of different types, particularly the vertebrates. Students in this course follow carefully the development of the chick through the earlier stages. Serial sections of entire chick embryos in different stages of development are prepared by individual students and used as a basis for the study of the development of tissues and organs of the animal. Applications of these details of vertebrate development to the development of the mammal are based on observations made through the dissection of pig embryos.

Prerequisite: BIOLOGY 402, Mammalian Anatomy and Histology

Credit: 4 semester-hours

BIOLOGY 408. Biological Technique

This course is designed to furnish the prospective teacher of biology with the technical details necessary to enable him as a secondary-school teacher to handle successfully biological materials and experiments and demonstrations in which these materials are employed. Students are trained in methods of collecting and preserving plants and animals for use in the laboratory and classroom. Study is made of the proper methods of preparing illustrative materials with special emphasis laid upon the purpose of these materials.

Prerequisite: BIOLOGY 101, 102, Botany, and 201 and 202, Zoology.

Credit: 4 semester-hours

BIOLOGY 409. Human Physiology

A study is made of normal and abnormal physiology based on previous study of mammalian anatomy. In addition to an analysis of the part played by organs and tissues in carrying out the essential functions of the body, special attention is given to problems of hygiene and sanitation. Applications of the above problems are made in reference to children of school age, and the physical condition of individual pupils is correlated with their behavior in the classroom.

Prerequisites: A course in Comparative Anatomy or BIOLOGY 402

Credit: 4 semester-hours

BIOLOGY 410. Comparative Anatomy of the Vertebrates

The aim of this course is to trace the probable course of evolution of the vertebrate type with partial reference to the history of the human body.

Prerequisites: BIOLOGY 201 and 202

Credit: 4 semester-hours

BIOLOGY 412. Genetics from Mendel to Lysenko

This course considers the scientific basis of the gene concept and its support in experiment from Mendel's work to the present allegations of the Lysenko School. Documents of some of the milestones in the history of the science are studied, and the adherence to scientific method carefully noted. The wide uses of the science in plant and animal improvement and the discoveries related to man's heredity make an integral part of the study. The course helps the teacher of biology or social studies to discriminate between what is scientifically known and what is political philosophy in genetics. Laboratory exercises supplement lectures and discussion.

An elementary college course in biology is the only prerequisite, and this may be waived in approved cases.

Credit: 2 semester-hours

BIOLOGY 413. Economic Botany

The discussion of the importance of plants and plant life to the world in general and to man in particular is the principal aim of this course. The economic importance of bacteria, fungi, and other lower plants is considered as well as that of the seed plants. The student should have a knowledge of general botany for an understanding of this course.

CHEMISTRY 201. Analytical Chemistry: Qualitative Analysis

The aims of this course are: a knowledge of the preparation of solutions; the separation and identification of the metallic and non-metallic ions; training in the techniques of careful note taking and interpretation of laboratory manipulation to secure information. The class work covers a systematic study of chemical equilibrium and its use in qualitative analysis. The laboratory work continues the work started in general chemistry and involves the complete analysis of several general unknowns.

Prerequisites: CHEMISTRY 101, 102

Credit: 4 semester-hours

CHEMISTRY 202. Analytical Chemistry: Quantitative Analysis

The purposes of the course are: to develop and apply the fundamental principles of solutions; to perfect the techniques of chemistry; to analyze quantitatively substances; to use the chemical balance. The class work covers that chemistry which is needed for gravimetric and volumetric analysis. The laboratory work involves gravimetric analysis, acidimetry and oxidation-reduction reactions.

Prerequisites: CHEMISTRY 101, 102

Credit: 4 semester-hours

CHEMISTRY 203. Analytical Chemistry: Applied Quantitative Analysis

The purposes of this course are: to develop techniques needed to use routine methods of analysis of common substances; to give experience in the application of chemistry to soil analysis, blood analysis, food analysis, and household preparations. The class work covers the electrochemical theory of oxidation-reduction, the modern atomic theory and its applications to understanding analytical procedure, theory of colorimetry, and the measuring of hydrogen ions.

Prerequisites: CHEMISTRY 101, 102

Credit: 4 semester-hours

CHEMISTRY 407. Advanced Quantitative Analysis

This course is adapted to the needs and preparation of students. The student, after consultation with the instructor, may select analyses from the following: general or special types of oxidation-reduction; gravimetric methods; colorimetric methods; use of organic reagents in analyses; electrometric titrations; conductimetric titration; spectrographic methods of analysis; electrodeposition of metals; and special methods of analysis.

Prerequisites: General college physics and one semester of quantitative analysis, or special permission of the instructor

Credit: 4 semester-hours

CHEMISTRY 408A. Industrial Chemistry, Part I

The purpose of this course is to enable science teachers to understand the type of chemical industries in the State of New Jersey and the nature of their

problems. A survey is made by lectures, reports, and trips to plants of the chemical industries in the state. This section of the course stresses the importance and the characteristics of chemical industry, the various unit operations used by the industry to carry out chemical reactions, the controls used to insure quality, organization for research, and the type of workers employed.

Prerequisites: General and organic chemistry, or special permission of the instructor

Credit: 2 semester-hours

CHEMISTRY 408B. Industrial Chemistry, Part II

This course is a study of the chemical industries of the metropolitan area utilizing the methods outlined in Chemistry 408A. Also, a study is made of the economics of chemical industry, chemistry and industry in general, and the effects of chemical discoveries upon living conditions.

Prerequisites: General and organic chemistry, or special permission of the instructor

Credit: 2 semester-hours

CHEMISTRY 411. Physical Chemistry, Part I

This course, the first half of a year's work in physical chemistry, deals with gases, liquids, crystals, physical properties and electrolytes, colloids, thermochemistry, and homogeneous and heterogeneous equilibria.

Prerequisites: General college chemistry, analytical chemistry, and general college physics

Credit: 4 semester-hours

CHEMISTRY 412. Physical Chemistry, Part II

This course deals with electrical conductance, electrolytic equilibrium, electromotive force, electrolysis, polarization, chemical kinetics, photochemical reactions, atomic structure, molecular structure, and radioactivity.

Prerequisites: General college chemistry, analytical chemistry, and general college physics

Credit: 4 semester-hours

CHEMISTRY 413. Atomic Structure and Atomic Energy

This is a lecture course designed to familiarize the student with a modern conception of the structure of matter and to acquaint him with some significant aspects of atomic energy. Some of the topics studied include the following: discoveries leading to knowledge of the structure of the atom; isotopes; nuclear fission; nuclear reactions; chemical versus atomic explosions; the chain-reacting pile; production of plutonium; detection and measurement of nuclear radiation and incendiary effects of atomic explosions; atomic energy for peace-time uses; radio-active isotopes in agricultural, biological, and chemical research; and availability of materials for atomic energy.

Prerequisites: General college chemistry and general college physics, or special permission of the instructor.

Credit: 2 semester-hours

PHYSICS 304. Introduction to Photography

This is a beginning course in photography consisting of laboratory work and field work supplemented by lectures and demonstrations. Some of the topics covered are: the construction and operation of cameras, common films and papers, fundamental chemistry of photography, development and printing. A student needs at least one camera.

Credit: 4 semester-hours

PHYSICS 402. Advanced Electricity

The most important aims and purposes of the course are as follows: (1) to provide a substantial background of training in the fundamental laws and principles governing the generation and use of electricity; (2) to develop skill in manipulating laboratory and demonstration apparatus; and (3) to offer opportunity for the exercise of originality in devising methods for the interpretation of experimental data.

This course consists of lectures, demonstrations, reference readings, written and oral reports, laboratory experiments with modern electrical instruments, and construction of simple electrical devices. Some of the topics studied are: modern concepts of the electronic structure of matter, electric forces, magnetic fields, potential, resistance, impedance, capacitance, and characteristics of thermionic vacuum tubes.

Prerequisites: PHYSICS 101 and 102

Credit: 4 semester-hours

PHYSICS 405. Light and Optical Instruments

Topics included for study in the classroom and laboratory are: the propagation of light; emission and absorption of radiant energy; reflection, refraction, polarization; spectrum analysis; photometric measurements; photoelectric cells; measurement of high temperatures; characteristics of illumination, modern illuminants; and industrial and domestic uses of light.

Prerequisites: General college physics and a course in electrical measurements

Credit: 4 semester-hours

PHYSICS 406. Astronomy

The course consists of a study of the fundamental principles of the science of astronomy. Such topics as the following are considered: motions of the earth; time; the moon; law of gravitation; the planets, comets, and meteors; the sun; evolution of the solar system; the constellations; distances and motions of the stars; spectrum analysis; and telescopic observations.

PHYSICS 407A. Aviation, Part I

This course deals with the historical development of aviation, air traffic rules, air-worthiness regulations, pilot certification, types of aircrafts, aircraft structures, principles of aerodynamics, lift, drag, stability, motions of an airplane, piloting, motorless flight, and aircraft engines.

Flight experience is made available as a part of this course.

Credit: 2 semester-hours

PHYSICS 407B. Aviation, Part II

This course continues the study of the topics considered in Physics 407A and also develops an understanding of power performance, propellers, engine instruments, and flight instruments.

Flight experience is made available as a part of this course.

Credit: 2 semester-hours

PHYSICS 408. Advanced Aviation

This course consists of the study of navigation; meteorology as applied to flight operations; radio communications; flight and navigational radio aids; instrument flight; jet, turbojet, and rocket flight; and recent advancements in aviation.

Prerequisite: Physics 407

Credit: 4 semester-hours

PHYSICS 409. Introduction to Radio Communication

This course deals with direct and alternating current circuits; construction and operation of detectors; characteristics of audio and radio frequency amplifiers; vacuum tubes; and two-way communication in aviation.

Prerequisite: General college physics

Credit: 4 semester-hours

PHYSICS 410. Physical Principles in Automotive Transportation

This course deals with the following topics: engine theory and design, cooling system, ignition, fuel system, motors and generators, wiring and lighting, storage battery, and transmission.

Prerequisites: General college physics and a course in electrical measurements

Credit: 4 semester-hours

PHYSICS 411. Photography

This course consists of laboratory work and field work supplemented by lectures and demonstrations. Emphasis is placed on physical principles in the construction of cameras, projection printers, tanks, and filters. Special attention

is given to chemical principles in the development of films and paper, toning, intensification, and reduction.

Prerequisites: General physics and general chemistry

Credit: 4 semester-hours

Students who wish to be recommended by the department to teach aviation should complete the following courses:

PHYSICS 407. Aviation

Credit: 4 semester-hours

PHYSICS 408. Advanced Aviation

Credit: 4 semester-hours

PHYSICS 409. Introduction to Radio Communication

Credit: 4 semester-hours

SCIENCE 401D. The Teaching of Aviation in Secondary Schools

Credit: 2 semester-hours

THE DEPARTMENT OF THE SOCIAL STUDIES

The social studies teacher requires a very broad knowledge of the facts of social life, both past and present. He needs not only to know the facts, but to be able to think about them. Even more important, he must know how to impart his knowledge to younger people and to stimulate their thinking and civic interest. The secondary schools of today are rightfully expected to train for a citizenship which is alert, informed, and socially sensitive. The social studies teacher must bear a large responsibility for the accomplishment of this result.

The Social Studies Department offers a wide range of courses in the subject-matter fields aimed to provide the necessary range of knowledge. Since teachers of all subjects have their share in citizenship training, this department offers for all students, whether social studies majors or not, a course in Civilization and Citizenship which presents a rapid survey of the civilizations of the past, and which examines the nature of social life and the relation thereto of the social studies. For all students there are, likewise, courses in contemporary economic, political, and social problems.

Social studies majors are required to take courses which are at once broad and thorough in those fields which the secondary-school teacher chiefly needs. Such are the courses in European history, American history, and those courses in economics, politics, and sociology which contribute so largely to an understanding of present-day problems, both American and international.

The aim is that in each of these fields, as the subject matter is studied, there shall also be considered the problems of teaching in that particular field. But

in addition to this professionalization of subject-matter, every social studies major is required to take in the senior year a specialized course in the methods of teaching the social studies.

Social Studies Major

The following course requirements constitute the social studies major:

Se	emester- hours
Social Studies 101. European History: 1492-1815	4
Social Studies 102. European History: 1815-1920	4
Social Studies 201. American History to 1860	4
Social Studies 202. American History: 1860 to the Present	4
Social Studies 301. Economics	4
Social Studies 302. Field Studies in Urban Life	3
Social Studies 401. The Teaching of the Social Studies in Secondary Schools.	3
Social Studies 407. New Jersey State and Local Government	2
Social Studies 425. Medieval Civilization	3
Social Studies 471. The United States Since World War I	2
either Social Studies 402A. American Government	2
or Social Studies 402B. Comparative Government	
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Social studies majors are required to make at least sixty observations in the College High School, for the most part in the junior and senior years. In so far as it is possible, these observations should cover the range of high-school classes from the seventh to twelfth grades and should be so organized as to follow the development of entire teaching units.

Minors in the Field of the Social Studies

There are now two minors in the field of the social studies; one in history, the other in political science and economics.

The courses in Civilization and Citizenship (SOCIAL STUDIES 100A and 100B) may be counted for six credits toward the eighteen necessary to complete the minor in history. SOCIAL STUDIES 201 and 202 and either SOCIAL STUDIES 101 or SOCIAL STUDIES 102 must be used to complete the minor.

The courses in Contemporary Economic, Political, and Social Life (SOCIAL STUDIES 200A, 200B, and 200C) may be used for six of the eighteen credits necessary for the minor in political science and economics. At the present time the twelve remaining credits may be made up of the following courses: SOCIAL STUDIES 301, 302, 402A, 402B, and 407. When it becomes possible to offer more elective courses, it is probable that other courses in the field of political science and economics will be available to those seeking a minor in that field.

THE FIRST YEAR

During the first year the social studies major, like all other students, takes a course in Civilization and Citizenship to orient him in the field of social studies and to provide him with a background of understanding for all the social studies work of the future.

In addition, he begins his work as a social studies major by an intensive survey of European history.

SOCIAL STUDIES 100A and 100B. Civilization and Citizenship

For a description of these courses, see page 44.

Credit: 3 semester-hours each

SOCIAL STUDIES 101. European History: 1492-1815

Europe's evolution since the breakdown of the Middle Ages; the spread of Humanism; the Renaissance and the Reformation; Europe's colonial expansion; the development of parliaments, with emphasis on England's constitutional struggles; the world rivalry between France and England; Russia's role in eighteenth-century Europe; the rise of Prussia; and enlightenments of the French Revolution and the Napoleonic era are studied. Emphasis is given to social, economic, and political changes which were caused by the diffusion of learning, science, inventions, and commerce.

Credit: 4 semester-hours

SOCIAL STUDIES 102. European History: 1815-1920

Europe's balance of power in the era of Metternich; the Industrial Revolution; nationalism; democracy; socialism and internationalism; the liberation of oppressed nationalities; the unifications of Italy and Germany; imperialist rivalries; materialism and militarism, the Balkan powder keg, and the origins of World War I are discussed. Emphasis is given to the inter-relations of changing moral values, economic instability, and social upheavals associated with world-wide conflicts.

Credit: 4 semester-hours

THE SECOND YEAR

All students of the second year, social studies majors included, make a broad survey of current social, economic, and political problems. These courses carry to completion the work of the first year in Civilization and Citizenship. Social studies majors continue their sectionalized preparedness with courses in American history.

SOCIAL STUDIES 200A. Contemporary Economic Life For a description of this course, see page 45.

SOCIAL STUDIES 200B. Contemporary Political Life For a description of this course, see page 45.

SOCIAL STUDIES 200C. Contemporary Social Life For a description of this course, see page 45.

Total credit: 6 semester-hours for 200A, B, and C

SOCIAL STUDIES 201. American History to 1860

Emphasis is given to the development of cultural differences among the English colonists, the causes of colonial hostility to the mother country, and the American Revolution. Considerable attention is given to the origin and nature of the United States Constitution and to the founding of the nation. The expansion of the nation territorially, the progress of the industrialization of the North, the rise of the new West, the new democracy, and the great struggle over slavery bring the story to the Civil War.

Credit: 4 semester-hours

SOCIAL STUDIES 202. American History: 1860 to the Present

The Civil War, the economic growth of the United States following Reconstruction, the difficult political and social problems growing out of this change, the increasing interest of the United States in world affairs, and World War I lead naturally to a consideration of present-day problems.

Credit: 4 semester-hours

THE THIRD YEAR

In this year the student comes into his electives, both in his own field of the social studies and in the fields of his chosen minors. Courses are offered in sociology, political science, economics, history, and field studies. All of these courses are rich with materials for his teaching in the contemporary fields of history, and especially in the field of twelfth-grade American history. The courses for students majoring in the social studies are 301, 302, and 425.

SOCIAL STUDIES 301. Economics

This course aims to provide the student with a detailed knowledge of the development and function of American economic institutions, the maladjustments that are apparent, and the changes that are in progress. The topics considered are: the corporation, banks, capital, industrial and agricultural production, problems of consumption, monopoly, foreign exchange, market price, and the distribution of wealth.

Credit: 4 semester-hours

SOCIAL STUDIES 302. Field Studies in Urban Life

This is a field-studies course in which the New York Metropolitan Area is used as the laboratory, and the social, economic, and political activities of the people of the area constitute the subject-matter. The course is designed to furnish first-hand experiences complementary to all other social studies courses, to reveal new horizons, and to train the student in field-work techniques. Studies are made of levels of living, minority groups, governmental services, economic institutions, and of the historical and geographic background of the region. There are eight field trips. To supplement the trips classroom discussions, lectures, moving pictures, and other multi-sensory aids are used.

SOCIAL STUDIES 425. Medieval Civilization

This course covers the period from the decline of Rome to about 1500. It first emphasizes the blending of barbarian cultures with that of the Roman resulting in feudalism as a way of life. After that a study is made of the gradual evolution of towns, a trade and industrial economy on a broadening scale, the emergence of monarchical states, an intellectual awakening with the founding of universities, all of which leads finally to our modern system of national states.

Credit: 3 semester-hours

THE FOURTH YEAR

The work of the fourth year serves to bring to a focus the work of the preceding years, as regards both subject-matter and the teaching of it. Social studies majors during the first semester are given a systematic course in the Methods of Teaching Social Studies. They also take courses in New Jersey State and Local Government and in recent American history.

This preparation leads directly to actual teaching experience when, in the second semester, each major spends twelve weeks in a secondary school teaching the social studies under the careful supervision of a teacher in that school and of members of the College staff.

In addition to the above mentioned required courses each senior is required to take one course in the Social Studies Department upon return from student teaching.

SOCIAL STUDIES 401. The Teaching of the Social Studies in Secondary Schools

The course aims to present recent tendencies in educational method in teaching the social studies. A program is presented containing the correlation of subject-matter organization in socialized recitation, the teaching of current events, projects in citizenship, and the use of the project-problem as a method of teaching history and civics. A laboratory containing texts and workbooks in the social studies field is available to the students of this course.

Credit: 3 semester-hours

SOCIAL STUDIES 402A and 402B. American and Comparative Government

The basic facts and principles necessary for the teaching of civics, history, and the political aspects of Problems of American Democracy are studied. The first part is devoted to American national government, including the obligations and rights of citizens, the suffrage, political parties, the changing nature of the Federal system, and the executive, administrative, legislative, and judicial systems. The second part deals with similar political phenomena in England, France, Germany, Italy, and Russia.

SOCIAL STUDIES 407. New Jersey State and Local Government

A study is made of the State Constitution; New Jersey's place in the Federal system; the rights and duties of citizens; suffrage; political parties; the legislative, the executive, and administrative systems; the courts, the law enforcement and correctional systems; revenues and expenditures; public health, educational, highway, and other services; county and municipal government; and other local political units.

Credit: 2 semester-hours

SOCIAL STUDIES 471. The United States Since World War I

This course surveys the major problems, economic, social, political, and international, which have marked our national development since the end of the first World War. It is intended especially for social studies seniors as a preparation for the second year of secondary-school American history as provided for in the recently adopted state requirements.

Credit: 2 semester-hours

ELECTIVES

The following are intended as elective courses for juniors and seniors; some of them may, under certain circumstances, be taken by sophomores with the consent of the Head of the Department.

Ancient and Medieval History

SOCIAL STUDIES 421. Oriental Civilization

This course presents the important contributions to civilization and social progress made in antiquity in three great centers of the Near East—Egypt, Mesopotamia, and Crete. Discussion of the Oriental culture pattern is amplified by visual aids. Emphasis is laid on the results of modern archeological research in completing the picture of early life in the Near East.

Credit: 2 semester-hours

SOCIAL STUDIES 422. Greek Civilization

The aim of this course is to present the development of Greek Civilization from the earliest period to the beginning of the Christian Era. The units of emphasis are: The Migrations; Life in the Dark Ages; The Fifth Century Climax; Alexander's Era; and the civilization of the great Hellenistic centers, Alexandria and Pergamum. Consideration is also given to the Greek experiment in Federal government, the Achaean League.

Credit: 2 semester-hours

SOCIAL STUDIES 423. Roman Civilization

This course traces the social changes in Rome from the earliest times to the end of the Western Roman Empire. Attention is directed to the earliest features of Roman civilization and to the changes—political, social, and economic—resulting from Etruscan, Carthaginian, and Greek influences. The rise and fall of the empire are discussed with relation to their importance in medieval civilization.

Credit: 2 semester-hours

SOCIAL STUDIES 426. Medieval History to 1498

In the first part a study is made of the factors contributing to the political breakdown of the imperial principle, such as the growth of Christianity, barbarization of the West, and the expansion of Islam. Increasing centralization in France under the Capetians is contrasted with the rapid decentralization of the Holy Roman Empire. The growth of Feudalism and the Crusades is emphasized. The second part is devoted to the developments in Western Europe after 1200, stressing political movements, medieval commerce, guilds, growth of towns, and cultural changes.

Credit: 4 semester-hours

SOCIAL STUDIES 427. Ancient History to 378 A.D.

The first part of this course covers the Oriental period and the Greek through the Periclean Age. Detailed study is given the Egyptian, Babylonian, and Hittite cultures, and Athenian democracy and imperialism. The second part covers the Hellenistic period from the rise of Philip of Macedon, stressing attempts at federalism. It also covers all periods of Roman history, placing special emphasis on republican forms and imperial experiments in governmental organization and control.

Credit: 4 semester-hours

SOCIAL STUDIES 473. The Arts in Western Civilization

This course is designed to show how the social, economic, political, and religious movements in Western Civilization influenced the aesthetic expression of Europe from the Golden Age of Greece to the Rise of the Industrial Revolution. Greek, Roman, Byzantine, Gothic, Baroque, and Rococo art, architecture, and music are discussed and illustrated.

Credit: 2 semester-hours

Modern European History

SOCIAL STUDIES 414. Modern England

This course deals both with the historical periods as such and with the influences of the political, economic, and social forces in the English literature of the century. The Napoleonic era, political reform, factory reform, the humanitarian movement, the Irish question, the ministries of Gladstone and Disraeli, and the interpretation of politics and literature are considered.

SOCIAL STUDIES 420. European Outlook

This course is designed to provide the background for understanding Europe today. The reality of ideological struggles between free and totalitarian countries is emphasized as a main source of present-day conflict. The Russian Revolution of 1917, the rise and collapse of Facism and Nazism, the Spanish Civil War, Munich, World War II, and world political developments from Yalta to our day are stressed. It is attempted to show how adversely an unstable Europe must affect the United States and the world, and to what extent a totalitarian Europe would threaten the balance of peace. Diplomatic, idealogical, and military strategy, and the gravity of the atomic menace are pointed out.

Credit: 4 semester-hours

SOCIAL STUDIES 441. Economic History of Europe

The study of Europe from an economic point of view is particularly important in the light of present European problems and their relation to world-wide conditions. This course is a survey of the economic life and development of Europe from the emergence of the ancient civilizations to the beginning of the modern economic world. It gives special attention to economic causes that underlie the dislocation and perplexities of the last century.

Credit: 2 semester-hours

SOCIAL STUDIES 448. The British Dominions

This course deals with the role Canada, Australia, New Zealand, and South Africa are playing in present world affairs. Special emphasis is given to Canada and its dual position as an American state and a part of the British Empire.

Credit: 2 semester-hours

SOCIAL STUDIES 457. Development of Russia

Factors which have shaped the evolution of the Russian people, such as Byzantinism and the Greek Orthodox faith, the Synod, Tartar state organization, the Mir, Westernization from Peter to Lenin, Slavophilism, and dialectic materialism, are emphasized. An account is presented of Soviet internal organization, sovkhoz, kolkhoz, and the Five-Year plans. In addition to the historical background, Russia's great writers are discussed in the light of social and political developments.

Credit: 2 semester-hours

SOCIAL STUDIES 458. Russia As A World Power

An analysis of Russia's relations with China, Iran, Turkey, the European continent, England, and the United States is presented. Marxist world policy, as interpreted by Kautsky, Plekhanov, Jaures, Bukharin, Trotsky, Lenin, and Stalin, is described. The changing views of the Second and Third Internationals, and the organization and methods of the Comintern are discussed. A chronological account of Soviet diplomacy, since Chicherin, is offered.

SOCIAL STUDIES 493. Western Europe Since World War I

This course presents an outline of the rise of communism and fascism and the reaction of western democracies to these movements. The Civil War in Spain, the Munich Pact, the failure of the League of Nations, diplomatic events of the World War II era, United Nations problems, the North Atlantic Pact, and special problems of western defense are emphasized. An evaluation of western Europe's significance for the United States is attempted.

Credit: 2 semester-hours

United States History

SOCIAL STUDIES 413. Economic History of the United States

The great trends and movements in agriculture, finance, commerce, manufacturing, transportation, and industrial relations are traced from their beginnings in the colonial period to their contemporary expressions in the present crisis. This course supplements, but it does not duplicate, courses in the political history of the United States or courses in economic principles and problems.

Credit: 2 semester-hours

SOCIAL STUDIES 419. American Political Biography

This is the study of the life and influence of the leading figures in American political and social history. It is the aim here to show the relation of each of these characters to the times in which he lived and to point out how he influenced the trend of American life. The study includes such leaders as Washington, Jefferson, Hamilton, Webster, Lincoln, Cleveland, T. Roosevelt, and Wilson.

Credit: 2 semester-hours

SOCIAL STUDIES 438. The Literature of American History

A brief description of the material available for the study of American history is followed by class practice in finding and using the primary sources of some of the facts commonly taught in schools. Representative American historians, their training for historical study, the sources they used, the degree of accuracy with which they used their sources, their point of view, their plan of organization, and their present importance are discussed.

Credit: 2 semester-hours

SOCIAL STUDIES 447. Diplomatic History of the United States

The purpose of this course is to show how we have become gradually conscious of our world interests and responsibilities, and the important role we have come to play in international politics. The growing concept of world democracy, as opposed to commercial and military imperialism, is stressed.

SOCIAL STUDIES 474. America in Transition

This course surveys rapidly the results of the Civil War and then emphasizes the major trends, economic and social, which have made modern America. It is intended as a more advanced study than that which is made in the undergraduate course. The period covered is from 1867 to around 1914.

Credit: 2 semester-hours

SOCIAL STUDIES 475. The History of American Thought

This course considers the influential thinking in America from the May-flower Compact to the Marshall Plan to see how certain ideas or trends of thought have grown out of situations and have in turn helped to mould the course of our history. The student should gain an appreciation for the American contribution to world culture, and an examination is made of outworn stereotypes which exist today. The writings and discourses of important American thinkers are considered including Mather, Paine, Jefferson, Emerson, Thoreau, and Veblen.

Credit: 2 semester-hours

SOCIAL STUDIES 480. Social History of the United States

This course presents a study of the social and cultural aspects of American history. As such, it supplements but does not take the place of economic and political history. The course considers population movements and growth, rural and urban social problems, status of women, family life, utopian ventures, mass media of communication, amusements and recreation, and human rights.

Credit: 2 semester-hours

The Americas

SOCIAL STUDIES 415. Latin-American Relations of the United States

This course aims to provide the information necessary to a clear understanding and accurate appreciation of the political, economic, and social relations that have developed between us and our Latin-American neighbors. To achieve this end, it considers the geographical conditions, the historical events, and the civic circumstances that have motivated and directed the growth of these relations and that will determine our Latin-American policy in the future.

Credit: 2 semester-hours

SOCIAL STUDIES 417. American Archaeology

This course shows that the New World of the early discoverers was in reality far from new. The course discusses the prehistoric pueblo dwellers and early mound builders. The truly remarkable civilizations of the Mayas and the Incas are examined and compared with that of the Aztecs. North American tribes of Indians are also studied in order to evaluate their significant cultures.

SOCIAL STUDIES 435A. The Americas: A Contemporary Political, Economic, and Cultural Survey, Part I

This course deals specifically with the relations of the United States and the Caribbean countries. Attention is given to the dependencies of the United States in this region as well as to the independent republics. Twentieth century political, economic, and cultural developments of this region are stressed in light of the inter-American system.

Credit: 2 semester-hours

SOCIAL STUDIES 435B. The Americas: A Contemporary Political, Economic, and Cultural Survey, Part II

This course deals specifically with the twentieth century political, economic, and cultural life of the South American nations. The role which the South American states play in world affairs is stressed. Attention is given to post-World War II developments and adjustments in South America.

Credit: 2 semester-hours

SOCIAL STUDIES 440A and 440B. The Development of Central and South America: as Colonies and Nations

The first part of this course surveys the period of exploration and settlement in the colonies of South and Central America. It traces the revolutionary movements that led to their independence and national development as Latin-American countries. The second part studies the experiences of the various Latin-American nations under different forms of government, ranging from absolute dictatorships to "popular front" administrations. It explains the economic and social standards of living accepted by the South and Central American people, and recognizes the contributions they have made to the growth of Pan-Americanism during the last century.

Credit: 2 semester-hours each

SOCIAL STUDIES 453A. The Development of Mexico and the Caribbean States

It is intended to show in this course the historical development of Mexico and the Caribbean nations in terms of their political, cultural, social, and economic progress in order to develop understandings and appreciations for their cultures and present-day problems. The relationships of their problems to those of the other American nations are stressed and placed in proper perspective.

Credit: 2 semester-hours

SOCIAL STUDIES 453B. The Development of Canada

This course is devoted to the study of the historical background, geographical environment, governmental organization, economic behavior, and social conditions of the northern neighbor of the United States. Its professional objective is to provide the understanding and appreciation necessary to the student and teacher who may follow and interpret the growth, internal and external, of the

Dominion of Canada and of its relation to the United States as well as to the British Commonwealth of Nations.

Credit: 2 semester-hours

International Affairs

SOCIAL STUDIES 412. International Government

The attempts of the international community of states to express itself in a formal world organization are the subject of this course. The agencies which have been established to deal with international legislative, executive, administrative, and judicial problems are studied. Specifically, among the topics discussed are: the national State system, sovereignty, equality, intervention, international law, diplomatic services and procedures, international conferences and unions, sanctions, treaties, arbitration, international courts of justice, armaments and war, League of Nations, International Labor Organization, regional agreements, the United Nations.

Credit: 3 semester-hours

SOCIAL STUDIES 434. Contemporary World Affairs

This course is devoted to a survey of the leading diplomatic, economic, political, and military issues before the world today. The backgrounds from which these international affairs have evolved are reviewed. A study is made of the significance of these issues in the development of a program for international cooperation and peaceful living among the peoples of the world.

Credit: 2 semester-hours

SOCIAL STUDIES 442. The Far East

A study is made of the economic, social, and cultural situation of the Far East, with particular emphasis on the historical background of China and Japan, and on our relations with the Philippines. Oriental folkways, religion, education, population shifts, and strategic questions are discussed. This course provides an approach to the problems the United States must face in the Far East.

Credit: 2 semester-hours

SOCIAL STUDIES 451. The Middle East

This course is a survey of Indian and Moslem civilizations. It shows that economic and political changes alone do not suffice to adjust the peoples of the Middle East to twentieth-century civilization, and that many cultural traditions must vanish while some forgotten features of the past are to be revived. Postwar planning for the region from the Near East through Persia, India, Burma, Thailand, and Malaya to the Netherland East Indies is discussed.

Economics

SOCIAL STUDIES 446. Current Problems in Economics and Government

This course is designed to analyze the relationship of economics to government. The causes and results of governmental activity are discussed in the light of their economic significance and their bearing on public welfare.

Credit: 2 semester-hours

SOCIAL STUDIES 450A and 450B. Modern Economic Problems and Policies

The purpose of this course is to contribute to the general need for increased knowledge in the area of economic relationship, using the problem-approach method of analysis. 450A begins with a brief recapitulation of the overall functioning of the economic system, after which the class proceeds to a detailed study of our broader economic problems and the public policies relating to them. Specifically, the problems are those relating to population and natural resources, the economic functions of govenment, the measurement of economic activity, monetary stability, basic banking problems, business cycles, marketing trends, economic inequality, and social security. 450B considers those problems associated with the world economy, international trade and exchange, monopoly and its regulations, the problems concerned with the control of public utilities, emergency price regulation and economic stabilization, labor problems, the problems of public finance, the public debt and fiscal policy, and, finally, the nature of comparative economic systems and their relations with each other.

Credit: 4 semester-hours

SOCIAL STUDIES 454. Post-War Economic Reconstruction

The purpose of this course is to provide information necessary to appreciate the impact of reconstruction following the war upon existing economic institutions. Emphasis is placed upon Congressional plans for reconversion, the postwar public debt and related fiscal policies; the political economy of regional economic regulations, cartels, and foreign investments.

Credit: 2 semester-hours

SOCIAL STUDIES 456. International Economic Relations

The purpose of this course is to study the significance of international trade and exchange to the economic life of our nation and the world economy. An analysis of the contrasting economic philosophies relating to international economic organization is made. Special emphasis is given to those policies which tend to promote freer trade, including the classical doctrine of comparative costs, the Reciprocal Trade Agreements Act, and the International Bank and Currency Stabilization Fund.

Sociology

SOCIAL STUDIES 429. Present-Day Social Problems

Beginning with a survey of levels of living in the United States and their relation to the distribution of wealth and income, this course proceeds with a study of poverty and crime, their sources, treatment, and prevention. Among the topics discussed are: housing, wages, unemployment, physical illness, accidents, old age, physical and mental defectiveness, the nature and extent of crime, police and prison systems, the criminal courts, and methods of punishment and reformation.

Credit: 2 semester-hours

SOCIAL STUDIES 439. The Family and Its Problems

This course gives a history of the family, our American family patterns, the effects of social change, marital patterns of interaction, social roles, sources of conflicts and frustrations, divorce and desertion, special problems in family life, economics of children and the home, social legislation pertaining to family problems, marital adjustments, personality change after marriage, parent-child relationships, and personality reorientation.

Credit: 2 semester-hours

SOCIAL STUDIES 443. Youth and the Community

This course is a sociological study of youth in its many relations to the community. Special attention is given to problems which arise in the relationship of youth and the community; e.g., juvenile delinquency, conditions contributing to maladjustment, poorly adjusted children, and educational and social agencies active in solving youth behavior. Through the study of concrete cases, social treatment and community research are demonstrated.

Credit: 2 semester-hours

SOCIAL STUDIES 444. The Social Bases of Human Relations

This course emphasizes the social bases of human nature and personality. Primary and secondary groups, folkways, mores, and institutions are considered. Special consideration is given to ecological and community differentials in reference to poverty, unemployment, criminality, incidence of disease, and mental derangement. Personal disorganization is studied as a process, and social forces leading to community maladjustment and social breakdown are reviewed.

Credit: 2 semester-hours

SOCIAL STUDIES 455. Social Legislation

This course analyzes the social, economic, and political adjustments which have come about in our society due to technological progress. The content covers such subjects as public policy relative to immigration; the problems of national income and its distribution; labor legislation; public policy to aid and protect the consumer; and an analysis of competing philosophies pertaining to industrial and social progress.

SOCIAL STUDIES 476. Personality Development and Group Relations

A study is made of personality growth through social contacts, the environmental factors found in the home and family, neighborhood, play, and school groups. Methods of measuring the place of the individual in the group, analysis of the group process, ways of bringing about better life adjustment, and integrating experiences are the subject matter of the course. Concrete cases of maladjustment to society and disintegrated personality are studied. Agencies in the community which serve youth are visited, and leadership in community group activities is recognized as part of the course requirements.

Credit: 2 semester-hours

SOCIAL STUDIES 477. Rural Sociology

During this course the student comes face to face with rural life in northern New Jersey. Social processes and problems are considered. Opportunities are provided for students to attend Grange meetings, county fairs, rural dances and parties, and to live for a day or two with a farm family.

Credit: 2 semester-hours

SOCIAL STUDIES 479. Education and Intercultural Relationships

Within our nation as within the world, along with common needs and interests, there exist differences between groups and individuals which act as barriers to satisfying human relationships. This course is devoted to a consideration of these barriers and of common interests and needs which exist in spite of such barriers. We study not only the existence of such conditions but also the attitudes, principles, and techniques which may make for better human relationships.

Credit: 2 semester-hours

Political Science

SOCIAL STUDIES 433. American Political Thought

This course deals with contemporary trends and theories as they have emerged from social and economic conditions and as they are founded upon the bases laid down by such men as Hamilton, Madison, Washington, Jefferson, Marshall, Calhoun, Webster, Lincoln, and Wilson.

Credit: 2 semester-hours

SOCIAL STUDIES 437. The Political Party System in the United States

Among the topics discussed are: party organization, the political boss, the political machine, party finances, the process of voting, election laws, primaries, conventions, platforms, presidential elections, majority rule, the development of the party system, sectional politics, the farm vote, the labor vote, and the future of party government in the United States.

Philosophy

SOCIAL STUDIES 404. The Philosophy of History

It is the purpose of this course to investigate the relation of history to the other social studies and also the major attempts to find the meaning of history. A brief survey is made of the leading philosophies of history.

Credit: 2 semester-hours

SOCIAL STUDIES 470. History and Principles of Philosophy

This course presents a study of the history of philosophy and of the important principles contributed by outstanding philosophers from Thales to Gentile. Much of the discussion is centered on three types of philosophic thought: naturalism, idealism, and pragmatism. Among the philosophers considered are: Plato, Aristotle, Bacon, Spencer, Rousseau, Hegel, James, Dewey, and Gentile.

Credit: 2 semester-hours

SOCIAL STUDIES 478. Theories of Social Justice from Antiquity to Our Time

This course is designed to show how specific ideas of social justice resulted from specific historical conditions and events. A comparison of social upheavals among the ancient Hebrews, Greeks, and Romans; the early Christians; the peasants in the Middle Ages; the religious rebels of the early Renaissance; and the revolutionaries of the modern age is to furnish background material for an understanding of present social thought. Lectures and discussions cover the social prophets of the Hebrews; Lycurgus; Cleomenes; Plato; Gracchus; Spartacus; the Essenes, the Waldensians, the Albigensians, and the Hussites; Wycliffe; John Ball; and on selected social thinkers of the last few centuries, such as Hobbes, Locke, Hume, Rousseau, the Utopians, the Socialists, and the Anarchists.

Credit: 2 semester-hours

Educational Techniques

SOCIAL STUDIES 472. Modern Social Studies Instruction and Supervision

This course is designed primarily to assist teachers and supervisors to obtain a comprehensive view of recent curricular trends, current subject-matter tendencies, and newer practices in secondary-school social studies. Topics discussed include: materials, methods, and techniques; use of audio-visual aids; courses of study and experimental programs; professional literature; and problems of the critic teacher and the supervisor.

Credit: 2 semester-hours

FIELD STUDIES IN AMERICAN LIFE

SOCIAL STUDIES 459. New Jersey and the Metropolitan Community

This is a sequel to SOCIAL STUDIES 302 and consists of an entirely different series of field studies. There are eight all-day field trips and seven two-hour class periods. The course is given on Saturdays, during both semesters when possible,

and is open to all regular and part-time students as an elective. The field studies in the course cover comprehensively the geography of New Jersey and the lower Hudson valley with emphasis on the conservation of natural resources. Attention is also given to the cultural pattern of the region.

Credit: 3 semester-hours

SOCIAL STUDIES 460. Central Eastern Region

This fifteen-day tour of Pennsylvania, Maryland, Virginia, West Virginia, North Carolina, and Tennessee covers the major points of historic interest associated with the Colonial Period, the American Revolution, and the Civil War, and the geographic features of the coastal plain, the Piedmont, the Great Valley, and the Appalachian Mountains in these states. Travel is by modern chartered motor coach, and overnight stops are made at first-class hotels. Among the places visited are: Valley Forge, Philadelphia, Baltimore, Annapolis, Washington, Arlington, Alexandria, Mt. Vernon, Fredericksburg, Richmond, Washington's birthplace at Wakefield, Lee's plantation at Stratford, Yorktown, Williamsburg, Jamestown, Raleigh, Chattanooga, Asheville, Great Smoky Mountains, Norris Dam, Jefferson's Monticello at Charlottesville, Natural Bridge, Skyline Drive in the Shenandoah National Park, Luray Caverns, Winchester, Harper's Ferry, Frederick, Gettysburg, and the Pennsylvania Dutch area around Lancaster and Ephrata.

Credit: 3 semester-hours

SOCIAL STUDIES 461. New England and French Canada

This field-study course gives an opportunity to study by direct observation the historical and geographical features of New England and the Province of Quebec. This trip, occupying the twelve days immediately following the summer session, is made in a modern chartered motor coach with overnight stops at first-class hotels. The route covers the lower Connecticut valley, including Hartford, Springfield, Northampton, and Deerfield; the Rhode Island cities of Providence and Newport; historic Massachusetts towns, such as Plymouth, Boston, Lexington, Concord, Salem, and Marblehead; the coast of New Hampshire and southern Maine; the White Mountains in the Mt. Washington and Franconia Notch area; the Canadian Province of Quebec, including the ancient French city of Quebec, Montmorency Falls, Ste. Anne de Beaupre, Montreal; the western shores of Lake Champlain, Lake George, and the Hudson River. It is an indispensable background for an understanding of Colonial and Revolutionary life and history in this region.

Credit: 3 semester-hours

SOCIAL STUDIES 462. Continental United States

This field-study course consists of sixty-two days of directed travel, including all of July and August, and provides an opportunity for gaining an integrated view of our country as a whole. The trip is made in a modern chartered motor coach with overnight stops at first-class hotels. The route covers about 12,500 miles and visits 26 states and 6 National Parks. Among the major points of

interest are: Gettysburg, Natural Bridge, Blue Ridge and blue grass region, Mammoth Cave, Lincoln shrines in Kentucky and Illinois, Dodge City, Royal Gorge, Pikes Peak, Denver, Rocky Mountain National Park, Taos and other Indian Reservations, Santa Fe, Petrified Forest, Painted Desert, Grand Canyon, Bryce and Zion National Parks, Hoover Dam, Los Angeles, Hollywood, San Diego, San Juan Capistrano and other Missions, Tia Juana, Santa Barbara, Sequoia and Yosemite National Parks, Monterey, San Francisco, Sacramento, Lake Tahoe, Reno, Donner Pass, mammoth redwood groves, Crater Lake, Columbia River Valley, Portland, Seattle, Mt. Rainier, Grand Coulee Dam, Spokane, Butte, Yellowstone National Park, Salt Lake City, pioneer trails of Wyoming, Black Hills, Chicago, Detroit, Toronto, and Niagara Falls. All important geographic and historical features are studied under the instruction of members of the college faculty and local specialists. Write for detailed descriptive folder.

Credit: 10 semester-hours

SOCIAL STUDIES 463. The Lower South

This is a fifteen-day field-study course, covering the gulf coasts of Louisiana, Mississippi, and Alabama, and both coasts of Florida. Among the topics observed and studied are: the Acadian and Creole culture in and around New Orleans; the industrial, historical, and recreational features of Biloxi, Mobile, and Tallahassee; the tobacco, citrus, and sponge-fishing industries in the neighborhood of Tampa, St. Petersburg, Lake Wales, Sarasota, and Fort Myers; the plant and animal life of the Everglades along the Tamiami Trail; the millionaire playgrounds of Miami and Palm Beach; and the historical shrines of America's oldest city, St. Augustine. It is usually offered during the Christmas holidays.

Credit: 3 semester-hours

SOCIAL STUDIES 464. Southeastern Region and Gulf Coast

This is a twelve-day field-study course covering the Atlantic Coast from Baltimore to Savannah and the Gulf Coast from Tallahassee to New Orleans. It surveys the economic, geographic, and historical aspects of the coastal plain, the Piedmont, and the lower Mississippi Valley visiting, among other places, Richmond, Williamsburg, Charleston, Savannah, Tallahassee, Pensacola, Mobile, Biloxi, New Orleans, Baton Rouge, Natchez, Vicksburg, Jackson, Birmingham, Atlanta, Greenville, Charlotte, and Greensboro. It is offered during the Christmas holidays.

Credit: 3 semester-hours

SOCIAL STUDIES 465. The Border States

This is a nine-day field-study course covering mainly the states which were border or frontier states during the early stages of the westward movement or border states between the North and the South during the Civil War. The route of the trip is down the Eastern Shore of Delaware and Maryland to Williamsburg, up the southern shore of the James River to Appomattox and across the mountains to Natural Bridge; then down the Great Valley to Knoxville and the

Norris Dam, westward to Nashville, north again to Mammoth Cave, the Lincoln Memorial, and the Blue Grass Country of Kentucky, up the Ohio River through the land of iron and steel to Pittsburgh, and finally homeward across the Appalachians by way of the Pennsylvania Turnpike.

Credit: 2 semester-hours

SOCIAL STUDIES 466. Puerto Rico and the Virgin Islands

This is a nine-day field-study course devoted to a survey of our nearest island possessions. It includes a rather thorough exploration of San Juan and its vicinity, including the University, the rain forest and the submarine gardens, a three-day trip through the island visiting pineapple, coffee, sugar, textile, and rum producing areas, churches, homes, and historic places. One day is spent in St. Thomas, largest of the Virgin Islands. The trip to and from the islands is made by air. It is offered during the Christmas holidays.

Credit: 2 semester-hours

SOCIAL STUDIES 467. Florida

This is a field-study course covering the Florida peninsula including both coasts, the Everglades, and the Lake Region. Among the places visited are ancient St. Augustine; the winter playgrounds at Palm Beach and Miami; the Tamiami Trail through the Everglades; the west coast cities of Sarasota, St. Petersburg, and Tampa; and the Lake Region in the neighborhood of Lake Wales and Orlando. The trip affords opportunity for topographical, historical, and industrial studies. It is usually given during the Easter vacation.

Credit: 2 semester-hours

BACKGROUND STUDIES IN AMERICAN LIFE

SOCIAL STUDIES 492A and B. Studies in American Life—The East and the West

These courses comprise a unit designed to give the student an integrated understanding of the United States as a cultural, historic, geographic, economic, social, and political unit and, at the same time, an appreciation of the regional differences which characterize American unity in diversity. It should be useful to those who have traveled, to those who intend to travel, and to those who, although they cannot travel, wish to broaden their knowledge of our country. The geography, the history, the literature, the art, the music, the architecture, the people, the manners and customs, the flora and fauna, the economic, social, and political problems, and the significant personalities of the regions studied are discussed and illustrated with slides, films, and other audio-visual materials. Either course may be taken without the other.

The subject matter of SOCIAL STUDIES 492A covers New England, the Central East, the South, and the Middle West east of the Mississippi River. The subject matter of SOCIAL STUDIES 492B deals with the regions west of the Mississippi; i.e., the Great Plains, the Mountain States, the Southwest, the Northwest, and California.

INSTITUTES AND WORKSHOPS

SOCIAL STUDIES 490A. United Nations Institute

This course covers four and one-half hours per day for ten consecutive days excluding Saturday and Sunday. It consists of basic lectures on factual backgrounds by the instructor, supplementary lectures by visiting lecturers from the United Nations and other organizations, discussions, workshop and library projects, demontrations of the use of audio-visual materials, and field trips to the United Nations. Included among the subjects studied are: the national state system, war and peace, world organizations (past, present, and proposed), the national armaments problem, international law, the international police proposal, pacific methods of settling international disputes, and the outlook for international cooperation.

Credit: 3 semester-hours

SOCIAL STUDIES 490B. The United Nations and American Foreign Policy

The purpose of this course is to help provide an understanding of the United Nations in its operation as a basis for American foreign policy. In that the Charter of the United Nations forms the backbone of American cultural, economic, and military cooperation with other nations, its interpretation and the application of our aid to needy people open a wide area of disagreement within the nation. Following the principle that American foreign policy should rest upon an intelligent understanding on the part of the electorate and working within the framework of the policy of the State Board of Education with regard to controversial issues, the United Nations Institute deals with the strong as well as the weak aspects of this newly created world organization. This institute serves the needs of teachers of all grades, students of foreign policy, the public at large, as well as visitors from other lands who are here to study the ways of American democracy. It is available to students who have completed the requirements for Social Studies 490A, *United Nations Institute*, or the equivalent.

Credit: 3 semester-hours

SOCIAL STUDIES 491A. Workshop in Citizenship Education, Part I

The purpose of this workshop is to present a study of what has been done in some of the many projects in citizenship education throughout the country. Special emphasis is placed on the plans and materials developed by the Citizenship Education Project now being conducted by Teachers College, Columbia University, and financed by the Carnegie Corporation. Montclair has been one of the eight teachers colleges cooperating in this project, and the College High School is now a co-operating school. Consultants are invited in as needed. Attention is given to programs and practices already in use in the schools, and advantage is taken of the state-wide project of this past year in collecting from the schools experiences in education for character and citizenship. New means for citizenship education are sought, and methods of evaluation are reviewed. Experience in the group processes esssential to democratic action is provided.

It is hoped especially to include in the workshop those who have been or may be serving as training teachers for Montclair student teachers, especially in the fields of social studies and English. Principals and administrators who want to join with others in learning how to make more effective the citizenship education in the schools with which they are connected are invited to participate. Each participant in the workshop works on actual plans for carrying out such education in the school and the classroom.

Credit: 2 semester-hours

SOCIAL STUDIES 491B. Workshop in Citizenship Education, Part II

Membership in this workshop course is limited to those who have completed SOCIAL STUDIES 491A, and participants in this advanced workshop meet and work with the members of the SOCIAL STUDIES 491A workshop. On the basis of previous experience, each member of the SOCIAL STUDIES 491B group is expected to work out several laboratory practices or similar projects for use in the classroom or the school.

Credit: 2 semester-hours

SOCIAL STUDIES 499. China Workshop

A number of authorities introduce first-year students to the rise, growth, and maturing of Chinese civilization, as well as to the fundamental problems of China today, including the conflict of ideologies. The course is given in twelve days. Each day there are two hours of lectures in the morning; after lunch a period of forty-five minutes is devoted to informal talks including further discussion on Chinese music, philosophy, Chinese school days, festivals, and calligraphy. Some time is also given to the singing of Chinese songs and the showing of motion pictures. During the two-hour workshop period the students prepare their projects, teaching units, and background material under the direction of faculty members.

Credit: 3 semester-hours

SOCIAL STUDIES 496A. The Chinese Society

This course is an intensive study of the formation of the Chinese people, their collective life, and the interaction of natural and human forces with the resultant social organizations from early times to the present. Particular emphasis is placed upon the development of social institutions, including the family, labor guilds, educational systems, and religious institutions, as well as their transformation and modernization under the impact of different forces from the West. There are twenty-four hours of lectures in the morning, and round-table discussion and library work in the afternoon.

Prerequisite: SOCIAL STUDIES 499, China Workshop

Credit: 3 semester-hours

SOCIAL STUDIES 496B. China: The Evolution of a Nation

This course is an intensive study of the Chinese civilization, the forces underlying the development of the national character of the Chinese people, their

contacts and conflicts with other peoples and cultures from historical times to the present. Because of its voluminous material, this course does not attempt to cover the whole span of Chinese history, but it is an integrated presentation of the maturing of the Chinese people as a nation. There are twenty-four hours of lectures in the morning, and round-table discussion and library work in the afternoon.

Prerequisite: SOCIAL STUDIES 499, China Workshop

Credit: 3 semester-hours

SOCIAL STUDIES 497. Chinese Philosophy

This course shows how the ancient philosophies, Confucianism, Taoism, Buddhism, Mohism, can be applied to the China of today and how they affect modern Chinese thought. There are twenty-four hours of lectures in the morning, and round-table discussion and library work in the afternoon.

Prerequisite: SOCIAL STUDIES 499, China Workshop, or an equivalent course

in philosophy

Credit: 3 semester-hours

SOCIAL STUDIES 498. China and The Far East

This course is given in twelve days, two hours each morning being devoted to the discussion of contemporary Chinese problems and China's relations to her neighbors in the Far East: Japan, India, Korea, the Philippines, and Russia-In-Asia.

Credit: 3 semester-hours

ART 414. History of Chinese Art

For a description of this course, see page 49.

Credit: 3 semester-hours

ENGLISH 459. A Survey of Great Chinese Literature

For a description of this course, see page 77.

Credit: 3 semester-hours

THE DEPARTMENT OF GEOGRAPHY

The world consists of regions. Each world region has its own personality, its own set of significant conditions. A kirghiz nomad, an Illinois farmer, a Norwegian fisherman, an Amazonian rubber gatherer, a Canadian lumberjack, and a Chinese junk man—each lives in a world whose conditions and outlook are unlike the others. To interpret those earth qualities is the distinctive function of modern geography. Geography in its dual role as a natural and social science thus becomes a task of interpretation. It has a field cultivated but little by the other natural and social sciences. It has a point of view which is needed in any attempt to analyze modern civilization.

Nations today must be considered as a part of one great family and can no longer be treated as totally separate units—whatever happens in one corner of

the earth is now of interest to the remainder of the world. It is not enough to know that tea is produced in China and the physical and economic reasons why; it is also necessary to realize that the status of the industry there may be reflected in the price of hogs in the corn belt of the United States.

Tariffs and sectionalism are closely related to geographic and industrial conditions—New England wants a tariff on clothes and shoes to protect her textile mills and shoe factories, the wool growers of Ohio want a tariff on raw wool, Pennsylvania wants a tariff on coal, the beet sugar interests of the United States demand a tariff on sugar, and western fruit growers call for a tariff on their products.

The science of geography provides an explanation of many things, a basis of understanding valuable in every walk of life as well as a vital part of training for citizenship, and an opportunity for teaching the good relations of nations with each other. A knowledge of the geography of the world should give people respect, sympathy, and understanding for each other. Almost every day people are called upon to meet and settle some problem that requires geographic knowledge. The agriculturist, the merchant, the mariner, the aviator, the manufacturer, the politician, the lawyer, the doctor, all should be well-grounded in this field. Aside from its application to the immediate problems of business and political life, geography has cultural value by making man at home with human relations and with his relations to nature by apprehending its beauty and grandeur.

Climate and weather enter deeply into the whole fabric of human life. Climate pursues us, lives with us, and conditions our activities, the vigor of our bodies, and the tone of our spirits, by day and by night, season by season, and year by year. The distribution of temperature and rainfall affects every human being from his birth to his death, controlling activity in agriculture, manufacturing, communication, transportation; it also governs the food, raiment, and home of man.

Courses in the Department of Geography are arranged not only to prepare teachers of geography for the junior and senior high schools, but also to: (1) contribute to the preparation of science and other teachers; (2) serve as fundamental courses for the student of history, economics, and related subjects; (3) afford, as a part of general education, a broad cultural background for an understanding of world affairs; and (4) furnish a basis for enjoyment of recreation and travel.

For geographical study, the State Teachers College at Montclair has an ideal location. Almost every kind of rock and mineral-type known to man is to be found here. There is an astounding diversity of geological structure and physiographic formation. The story of glaciation is written across the whole area of Northern New Jersey. Contrasted types of stream, valley, and topography are at one's command. Only a few miles to the east lies the coast line with its wealth of shore-line features, while to the west appear the folded ranges of the Appalachians and the Delaware Water Gap, one of the notable works of nature. New York City, with its millions of people from all parts of the world, its

splendid harbor, its large and well-equipped libraries and museums, its weather bureau, and its enormous wealth of industry and lines of communication, is less than an hour's ride away.

SCIENCE 100C, *The Earth Sciences*, is required of all students. GEOGRAPHY 201, 202, 301, and 302 constitute a minor in geography.

THE FIRST YEAR

The work of the first year in geography aims through a study of geographic principles to give the student an accurate conception of the subject as a field of scientific thought; to give an appreciation of the importance of geography in education; to serve as a unit of general culture; and to establish fundamental concepts of the subject that will be of value for further study of geography.

SCIENCE 100C. The Earth Sciences

For a description of this course, see page 47.

Credit: 2 semester-hours

THE SECOND YEAR

The courses for the sophomore year are arranged to give the students a thorough grounding in the physical background of the subject, and a development of geographic thinking that will aid them in clear reasoning and expression in working out the relationships of man to his natural environment. Also detailed regional studies of continental areas are introduced for the first time, and more thought is given to the professionalization of the subject matter.

GEOGRAPHY 201. Climatology

A consideration is given to the meterological elements, such as temperatures, pressures, winds, clouds, humidity, precipitation, and atmospheric dust which go to make up climates. In the treatment of the climate, the aim is to determine: (1) its characteristics, (2) its regional distribution, and (3) its significance to life activities. Attention is given to the operation and values of the Federal Weather Bureau. Throughout the course emphasis is placed upon the relationships of climate to human affairs.

Credit: 4 semester-hours

GEOGRAPHY 202. Geography of the Western Hemisphere

This course constitutes a detailed regional study of the continents of North America and South America. North America is treated first. It serves as an introduction to and a desirable foundation for the study of other continental areas. Emphasis is placed upon the human activities in relation to their natural environment, the commercial relations of the two continents with each other and with the world as a whole, and the possibility of further human utilization.

THE THIRD AND FOURTH YEARS

In the work for the junior and senior years there is continued emphasis upon the subject-matter in regional and economic geography necessary for teaching geography in the secondary schools. Also more attention is given to the professionalization of the subject-matter than in either of the previous years; that is, the techniques of presenting material, the use of geographical tools, and the problems of testing are dealt with in the treatment of the subject-matter in hand.

GEOGRAPHY 301. Geography of Eurasia

This course includes a consideration of the relief, climate, coastline, and marginal seas of Eurasia as a whole, to be followed by detailed regional studies of Europe and Asia respectively. Emphasis is given to the economic, social, and political activities of the people of Europe and Asia in their relation to the natural environment.

Credit: 4 semester-hours

GEOGRAPHY 302. Economic Geography

A comprehensive study is made of the influence of the natural environment upon the production, trade, and utilization of the more important agricultural, mineral, forest, factory, and sea commodities; of the development of continental and ocean trade routes and trade regions of the world. The course affords preparation for the teaching of world geography and economic geography in secondary schools.

Credit: 4 semester-hours

GEOGRAPHY 303. Regional Commercial Geography of the Americas

This course comprises a regional study of the physical geographic factors which contribute to the production, distribution, and marketing of the resources of the western hemisphere. The location of trade routes and commerce centers in relation to the physical features of the earth's surface is considered. Emphasis is placed on the main industries resulting from the utilization of the natural resources, on the recent trends and shift of industries, and the world position of the nations of the Americas in the production and exchange of commodities.

Credit: 3 semester-hours

OTHER COURSES IN GEOGRAPHY

GEOGRAPHY 405A and 405B. Climates of the World

This course embraces an explanatory comparison of the major types of climatic environment found in different parts of the world, and the factors controlling their distribution. Special attention is given to graphing, mapping, and the interpretation of climatic data.

GEOGRAPHY 406. Geology

This course deals with the earth and its geographic, stratigraphic, and structural development throughout geologic time; the record of the evolution of life as interpreted through a study of rocks and fossils.

Credit: 2 semester-hours

GEOGRAPHY 408A and 408B. Political Geography

This course deals with the geographic conditions influencing the significant changes in the political divisions of the world. Emphasis is placed on geographic factors influencing racial, religious, commercial, and political adjustment between nations.

Credit: 2 semester-hours each

GEOGRAPHY 409. Economic Geography of the British Isles

A comprehensive treatment of the resources of the British Isles is given, and the influence of the natural environment upon the utilization of those resources in the economic, social, and political development of the British Empire is evaluated.

Credit: 2 semester-hours

GEOGRAPHY 410. Economic Geography of Caribbean America

This is a study and interpretation of the major and important minor economic areas of Caribbean America in relation to the natural environment. Attention is also given to the historical factors which have played a part in the economic and social life of the people.

Credit: 2 semester-hours

GEOGRAPHY 411. Geographic Influences in American History

A study is made of the geographic factors influencing the development of social, economic, and political life in America.

Credit: 2 semester-hours

GEOGRAPHY 412. Geography of Africa, Australia, and New Zealand

A study is made of the activities of the people of Africa, Australia, and New Zealand in relation to their natural environment. Emphasis is placed upon the location, relief, and climate of the continents. Attention is given to the influence of geographic factors upon the post-war adjustments and the possible future relations of these countries with the United States.

Credit: 2 semester-hours

GEOGRAPHY 413. Economic Geography of South America

This course constitutes a study of the influence of the natural environment upon production and utilization of resources in the economic, social, and political development of the various nations of South America.

GEOGRAPHY 414A and 414B. Advanced Economic Geography

This course is a study of the influence of the physical environment upon the production of, the trade in, and the utilization of the important agricultural, forest, mineral, and sea products, and the manufactured commodities of the world.

Credit: 2 semester-hours each

GEOGRAPHY 416. Conservation of Natural Resources

This course includes a study of the natural resources of the United States, their past and present exploitation, their influence on the development of the nation, their conservation and future use.

Credit: 2 semester-hours

GEOGRAPHY 417. Meteorology with Application to Aviation

This course constitutes a study of the atmosphere, the sources of atmospheric heat, temperature variations and their relation to weather phenomena. Emphasis is placed on the nature of the large scale wind systems, air masses and fronts, and upon rainfall distribution. Special phenomena such as thunderstorms, fog, and ice accretion which affect the operation of aircraft are treated, and the uses of meteorological instruments are explained.

Credit: 2 semester-hours

GEOGRAPHY 418. Regional Geography of North America

This course constitutes a detailed regional treatment of the continent of North America. Emphasis is placed upon the human activities of the various regions in relation to their natural environment and the relations of the regions to each other. Attention is given to the techniques of presenting the material and the use of geographic tools in the treatment of the subject-matter.

Credit: 2 semester-hours

GEOGRAPHY 419. Economic Geography of the Union of Soviet Socialist Republics

This course is designed to give a comprehensive and objective treatment of Soviet Russia's natural resources and industrial potential in relation to the geographic environment. Special emphasis is given to the formative periods of Russia's industry to show the significance of and the continuous operation of geographical factors in the economic development of Russia.

Credit: 2 semester-hours

GEOGRAPHY 420. Field Geography and Conservation

This course constitutes a study of the relation between relief features of northern New Jersey, the location of natural resources, and the way in which land use and population distribution follow these patterns. Emphasis is given to the reading and interpretation of topographical maps and aerial photographs

and to a study of the United States Geological and Soil Surveys of this region. By means of an actual land-use survey the student comes to appreciate the problems of conservation as they grow out of man's use of natural resources.

Credit: 2 semester-hours

THE DEPARTMENT OF HEALTH AND PHYSICAL EDUCATION

The Department serves the College by offering an activity program that is open to all students on an extra-curricular basis, a required activity program for freshmen and sophomores, and a curriculum that will lead to certification for teaching physical education. Certain courses are offered in health education for those who wish to elect them.

The Required Program

HEALTH EDUCATION 100, Healthful Living, is required of all students.

Physical Education—Two hours a week of gymnasium work for four semesters are required of each freshman and sophomore student. The Department aims to provide a well-balanced program of vigorous power-building activities which will prove pleasurable and satisfying and offer recreational interests for both college and post-college life.

Each student is given a yearly health examination by a physician who determines the fitness of the student to participate in the general program.

Regulation costume is required of all students.

HEALTH EDUCATION

HEALTH EDUCATION 201. Anatomy and Physiology

A study is made of the structure and function of the various systems of the human body. The course is designed to fill requirements for the teachers of health and physical education.

Credit: 4 semester-hours

HEALTH EDUCATION 207. Safety Education

This course is designed to prepare teachers for a relatively new field in education. Opportunities are presented for acquiring knowledges and skills related to safety in the school buildings, on the school grounds, and going to and from school.

Credit: 2 semester-hours

HEALTH EDUCATION 401. Methods and Materials in Health Education

This course prepares the teacher to assume the responsibility for organizing and conducting a program of health instruction. The coordination of health with other subject-matter fields and the evaluation of textbooks and audio-visual materials are given special consideration.

HEALTH EDUCATION 407. Prevention and Care of Athletic Injuries

This is a lecture and laboratory course designed to acquaint the student with ways to prevent and care for the common injuries sustained in athletics. Attention is given to sprains, strains, bruises, burns, and fractures. The responsibility of the coach in caring for injuries is emphasized.

Credit: 2 semester-hours

HEALTH EDUCATION 408. Behind-the-Wheel Driver Education and Driver Training

PART I

This part consists of a minimum of 40 hours of class recitations and discussions for which home reading and study have been assigned. The following topics are included: (1) history and development of driver education and training programs; (2) objectives of driver education; (3) local, state, and national traffic-safety programs; (4) driver qualifications; (5) psychophysical testing; (6) curricular content of school courses in driver education and training; (7) construction, operation, and maintenance of automobiles; (8) traffic laws and driver licensing; (9) traffic engineering; (10) pedestrian education and protection; (11) equipment for teaching driver education; (12) liability, costs, and insurance; (13) planning driver education as a part of the daily program of the high school; (14) public relations; (15) records and reports; and (16) visual aids in teaching driver education.

PART II

This parts consists of a minimum of 20 hours devoted to the following: (1) behind-the-wheel instruction; (2) demonstrations and student-teacher practice in the car; and (3) road tests in traffic. Home reading and study are required in preparation for these projects.

Prerequisite: License to drive a car

Credit: 2 semester-hours

HEALTH EDUCATION 411. School Health Services

The student is familiarized with the health services available in the school. The part which the teacher plays in coordinating his activities with the school medical staff is emphasized.

Credit: 2 semester-hours

HEALTH EDUCATION 412. Home Hygiene and Care of the Sick

Principles, methods, and content for teaching home care of the sick and mother and baby care are presented in this course. All lessons are demonstrated. Teaching by students is an essential part of the course. Successful completion of the course qualifies the student as a Red Cross instructor in home care of the sick and mother and baby care for student groups, mothers' groups, and other community groups. Credit for this course may be applied as partial fulfillment

for the requirements for the permanent certificate for school nurses. Nurses, teachers, and teachers-in-training may enroll for this course.

Credit: 2 semester-hours

The Minor Program

With the required courses in health and physical education as prerequisites additional courses are offered which will prepare teachers of physical education. On successful completion of the curriculum the student is eligible to be certified to teach physical education in junior and senior high school.

Students interested in the field should arrange for an appointment with a division head of the department before undertaking the program.

It is suggested that students minoring in the department should obtain outside experience by working either in schools, playgrounds, camps, or recreation centers.

PHYSICAL EDUCATION

The curriculum has been organized for men and women who may desire to teach physical education, to coach athletic teams, or to assume leadership in physical education activities in school, camp, club, or playground.

Students who are minors are expected to assist in administering the physical education and sports program of the College and the College High School. While it is not a prerequisite that the men be members of the College athletic teams, or that the women participate in extra-curricular sports and Dance Club, such participation is highly recommended.

The following courses are required for all physical-education minors: HEALTH EDUCATION 100, PHYSICAL EDUCATION 201, 202, 206, and 409 for both men and women; PHYSICAL EDUCATION M307-308 and M405 for men; PHYSICAL EDUCATION W307-308, W313 and W405 for women.

PHYSICAL EDUCATION 201. Anatomy and Physiology

(For a description of this course see HEALTH EDUCATION 201.)

Credit: 4 semester-hours

PHYSICAL EDUCATION 202. History and Principles of Physical Education

The student is acquainted with the scope of physical education. The course deals with the history, philosophies, and objectives underlying the present program. The effects of big-muscle activities on the organism as discussed. Reference is given to skill, interpretative and emotional development, and the individual adjustment to standards.

PHYSICAL EDUCATION 206. Methods of Teaching Games

In this course the student is taught the rules, techniques, and methods of playing and teaching games of low and medium organization.

Credit: 2 semester-hours

PHYSICAL EDUCATION M307-308. Methods of Coaching and Officiating

The offensive and defensive strategy of the various varsity sports are discussed in season. A knowledge of the rules and techniques of officiating the various sports, together with actual experience in coaching and officiating are required. This course runs for two semesters.

Credit: 3 semester-hours each

PHYSICAL EDUCATION W307-308. Methods in Sports for Women

The purpose of this course is to present the skill techniques and coaching and officiating methods essential for successful teaching of girls' sports in high school. Such active participation as is necessary is required.

Credit: 2 semester-hours each

PHYSICAL EDUCATION W313. Methods of Teaching Folk, Tap, and Ballroom Dancing

This course is designed to familiarize the prospective teacher with a repertoire of steps and dances appropriate to various age levels, degrees of competence, and interest. Students are expected to plan, conduct, and evaluate different types of lessons.

Credit: 2 semester-hours

PHYSICAL EDUCATION 314. Theory and Practice of Modern Dance

This elective course provides experience in group and individual activity in both techniques and choreography. Through discussion the student develops an appreciation of the dance as an art form. The course is open both to men and women.

Credit: 2 semester-hours

PHYSICAL EDUCATION M405. Management of Athletic Activities

The student is provided with information essential to the good management of an intra-mural and interscholastic athletic program. Some of the major problems to be considered are: education values, health and safety of participants, insurance, transportation, scheduling, management of finances, budgeting, maintenance of play areas, care of supplies and equipment, state and local athletic associations, and the organization of leagues and meets.

PHYSICAL EDUCATION W405. The Program of Physical Education for High-School Girls

Consideration is given to the entire physical-education program for girls in junior and senior high school including: preparation of courses of study, methods of instruction, and extra-curricular activities. Active participation in the athletic associations, and the organization of leagues and meets.

Credit: 2 semester-hours

PHYSICAL EDUCATION 409. Organization and Administration of Physical Education

The details of organizing the units of the physical-education program are discussed. Various topics, such as legislation, financing, curriculum construction, grading, excuses, plant facilities, supplies and equipment, and office management are considered.

Credit: 2 semester-hours

PHYSICAL EDUCATION 410. Water Safety and First Aid

This course includes intensive instruction in swimming, diving, water sports, boating, canoeing, water safety, and first aid. Students can qualify for Red Cross certification during this course.

Credit: 2 semester-hours







NEW JERSEY STATE TEACHERS COLLEGE AT MONTCLAIR

Undergraduate
BULLETIN
1956-1958

UPPER MONTCLAIR, NEW JERSEY



Bulletin of Information

AND

Catalog of Courses

1956-1958

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NUMBER 1



New Jersey State Teachers College at Montclair

COLLEGE CALENDAR 1956-57

First Semester 1956-57

September 10-11-12 Registration and Beginning of classes October 12 Columbus Day—No Classes October 29-30 Faculty Institute—No Classes November 12 Veterans Day-No Classes November 21 Thanksgiving recess begins at close of college day November 26 Thanksgiving recess ends at opening of college day December 21 Christmas vacation begins at close of college day January 7 Christmas vacation ends at opening of college day Fall semester ends at close of college day January 26

Second Semester 1957

January 28-29	Registration and Beginning of 2nd semester classes
February 12	Lincoln's Birthday
February 22	Washington's Birthday
March 18	Entrance Examinations
March 29	Spring recess begins at close of college day
April 8	Spring recess ends at opening of college day
April 19	Good Friday-No Classes
April 22	Easter Monday—No Classes
May 30	Memorial Day-No Classes
June 10-15	Commencement Week

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ESTHER B. SPENGEMAN, A.B.	Secretary to the Integration Office
RUTH D. FREEMAN	Assistant in Admissions and Research
MARGARET MOSTICA	Secretary, Field Studies
LETITIA MOORE	Secretary to the Dean of Women

Part I

GENERAL INFORMATION

GENERAL OBJECTIVE

The general aim of the College is the same as that for all education in a democracy—the preparation of youth for a constructive and profitable life in society. This general citizenship aim is fundamental to the course of study and the method of teaching.

The New Jersey State Teachers College at Montclair is a professional school which prepares teachers for the junior and senior high schools of the State. This definite objective has been the controlling factor in the development of the curricula, teaching procedures, extra-curricular activities, and the college spirit and has tended to unify all activities—professional, cultural, and social.

The College is organized for those who have a sincere interest in promoting the general welfare of society through the medium of the secondary schools of the State. Those who have the natural ability to become friends, guides, and leaders of youth should consider the opportunities offered by the profession of teaching.

FUNDAMENTAL PRINCIPLES AND POLICIES

The following principles control the organization and development of the College. The second statement of each principle is somewhat explanatory of the first and in most cases is addressed particularly to students.

- (1) The College should have clearly defined objectives which should limit and control its offerings and activities.

 Entering students should understand what the College has to offer in relation to their interest and purposes.
- (2) The College should be so organized and administered as to promote the interests and welfare of prospective workers in the profession. The students should be offered the most desirable opportunities for the promotion of their educational interests and success, their physical health and energy, their emotional adjustments and stability, and their social attitudes and habits.
- (3) To teach should be a privilege and not a right, i.e., candidates for teacher preparation should be selected.

 The students who are to be privileged to prepare for teaching must demonstrate their intellectual, personal, and scholastic fitness for the profession.
- (4) The relative value of the curricular materials used in a teachers college should be judged by the nature and needs of the schools and communities which it serves. Though teachers are exponents of broad culture, yet the selection of the necessary materials for a prospective teacher must be made on the basis of professional service.



(5) Teacher preparation should be differentiated and specialized in accordance with the aims and organization of schools to be served. The differentiated program at Montclair provides for the training of junior and senior high school teachers and permits specialization within this program in English, foreign languages, mathematics, science, social studies, administration and guidance, business education, geography, music, physical education, speech, fine arts, industrial arts, and home economics.

(6) Prospective teachers should acquire a rich background of general culture including a knowledge of present-day problems. The professional-cultural background studies offer a broad human interest in the social, political, economic, industrial, religious, scientific, literary, and aesthetic phases of life.

(7) Professional scholarship should be sound. Professional scholarship refers particularly to the scholarship required in the student's major and minor fields of specialization. Each student is required to complete approximately thirty-three semester-hours in his major and eighteen semester-hours in his minor field of interest.

- (8) Prospective secondary school teachers should not only acquire a teaching knowledge of subject-matter but also a teaching knowledge of adolescent pupils involving the theories and techniques in their instruction.

 The professional objectives provide teachers college students with a motive for learning which in turn insists upon functional knowledge. The adjustment of this knowledge to the aptitudes and needs of high school pupils requires methods and skills in instruction.
- (9) The program of studies and activities of a teachers college should be progressive, sequential, and integrated. Education is confronted with the problem of bringing isolated courses back into their natural relationships or into a unified body of knowledge in order to promote broader understanding, clearer meanings, and balanced judgment.
- (10) The College should seek persistently to maintain high standards of excellence together with practical concepts of usefulness. Students must give their best efforts, maintain high standards of scholarship, and demonstrate ability to use their knowledge and skills.
- (11) Open-mindedness on the part of all participants in teacher preparation should be encouraged in order to facilitate individual adjustments and growth. A student's experience in college stimulates intellectual curiosity along with an interest in truth. Such attitudes promote a recognition and understanding of differences and an ability to adjust and grow in a changing world.

History

In 1903 the State Board of Education recommended that a Normal School be established in the northern part of the State of New Jersey. The following year the Legislature purchased a site of twenty-five acres in Upper Montclair. The main building, College Hall, was completed in 1908, and the first class was admitted in September of that year.

Seven years later Edward Russ Hall was built with the bequest of the Honorable Edward Russ, who at the time of his death was a member of the State Board of Education and chairman of the Normal School Committee. Other buildings were added to the campus in 1928 and 1929.

Additional land, lying to the north of the main campus, was purchased in 1927 and 1929, bringing the total area to seventy acres.

On May 27, 1927, the State Board of Education passed resolutions as recommended by the State Department of Public Instruction establishing the State



Teachers College at Montclair for the education of teachers for the secondary schools. The first class was graduated from the four-year college curriculum in June, 1930.

Extension courses were added to the teachers college program in 1929. The summer session was established in 1930. Late in the spring of 1932 the State Board of Education voted that the College should offer graduate courses and grant a Master's degree.

Professional and Academic Status

The New Jersey State Teachers College at Montclair is a fully accredited member of the American Association of Colleges for Teacher Education, the Middle States Association of Colleges and Secondary Schools, and the American Association of University Women. Credits are exchangeable among colleges and universities which are members of the above regional and national associations.

Location

The College is located in Upper Montclair about three miles from Montclair Center. The town of Montclair and the college campus are located on the east side of the Watchung mountain, which extends from north to south. From this elevation the campus commands a view of unusual interest and beauty. The city of New York, which is about twelve miles to the east, forms the background of the campus view. In the foreground may be seen the gardens, towns, and cities of Bergen, Hudson, Essex, and Passaic counties. The view is impressive by night when one sees the myriad lights of this metropolitan section.

The college campus may be reached by the Lackawanna Railroad to Montclair, and then by bus to the southeast entrance; by the Erie Railroad to the Montclair Heights Station, which is near the south entrance; and also by direct bus lines from New York, Newark, the Oranges, and Paterson.

Grounds and Buildings

The College is located on a wooded campus of seventy acres. Most of the campus is comprised of high ground which overlooks the valley to the east. The campus is developed with lawns, roadways, parking areas, and athletic fields. An outdoor amphitheater has a seating capacity of 2,000.

An extensive building program has provided the College with many new facilities in recent years. The following buildings will be available to students who enter the College in the fall of 1956:

College Hall which contains the administrative offices, the Library, the Audio-Visual Aids Center, and numerous classrooms and faculty offices

A new classroom building which houses the Fine Arts, Industrial Arts, Science, Home Economics, and Mathematics Departments

A combination food service, student life, and auditorium building—This building also includes facilities for a speech education center.



A physical education building with facilities for both men and women

A demonstration high school with small auditorium, gymnasium, library, home economics room, and classrooms

Three dormitories, two for women and one for men, each of which houses approximately one hundred students—Each of these dormitories has a spacious lounge and additional recreational and social facilities, plus laundry facilities, storage rooms, and offices.

A recreation building with fireplaces and a kitchen provides a meeting place

for clubs and other student groups.

A large athletic field adjacent to the gymnasium includes a football field, baseball diamond, and running track.

In addition to the permanent buildings listed above, there are four temporary buildings containing classrooms and laboratories and faculty offices.

Expenses

General Expenses for Regular College Year of approximately 37 weeks

The tuition fee for residents of the State of New Jersey is \$100 a year.

The tuition fee for non-residents is \$13 per semester-hour of credit.

The Student Government Association fee is \$36 a year.

The general service charge for music, fine arts, industrial arts, and home economics majors is \$12.50 per semester.

The general service charge for all other students is \$10 per semester. The student teaching fee for all undergraduates is \$7.50 per semester.

Special fees in connection with senior graduation activities are determined by a senior committee each year prior to Commencement.

The tuition fee is payable in two installments, one-half in September and one-half in January. The student fees and service charges are also payable in two installments, one-half in September and one-half in January.

These charges are subject to revision.

Living Expenses for Regular Year

The charge for board and room in dormitories is \$536.50 for the regular college year of approximately 37 weeks. This charge is subject to change due to variations in living costs.

Payments are made as follows:

\$145.00 on or before registration in September.

\$123.25 on or before November 1.

\$145.00 on or before registration in February.

\$123.25 on or before April 1.

Women students who plan to live in dormitories should consult the Dean of Women or make written application. Men students should make application to the Dean of Men for housing accommodations. If at any time dormitory accom-



modations are not available, lists of approved accommodations in private homes will be provided. When dormitory vacancies occur, it is understood that students living in private homes will transfer to fill such vacancies.

Scholarships and Loans

See Financial Adjustments Page 35.

Student Supply Store

The store aims to supply such books and materials as are in continual demand by the student body and faculty.

Cafeteria

Lunches are served in the cafeteria at cost prices for all students. It is under the same management as the Edward Russ dining room.

Gifts

A generous gift of money from the late Edward Russ has enabled the college to place on its walls many photographs of men eminent in science, philosophy, education, and public affairs, as well as several reproductions of the masterpieces of great artists. At his death Mr. Russ bequeathed a substantial sum of money which has taken permanent form in the building of Edward Russ Hall.

Many other gifts have been presented by normal school and college classes, graduates, and friends. These are now serving a variety of purposes in the College Hall, dormitories, College High School, and on the campus. They are highly prized by the students and faculty as expressions of the good will and generosity of the donors.

Admissions

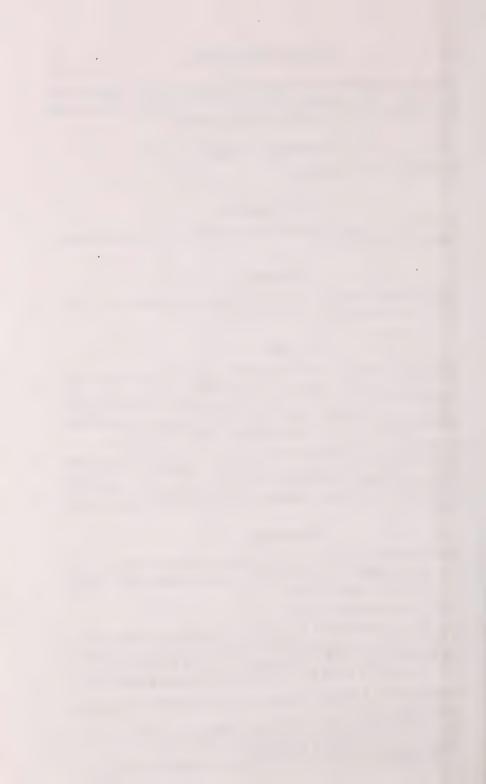
Admission requirements are arranged for three groups of students: those intering the freshman class; those entering with advanced undergraduate credits; and those entering the Graduate Division.

Admission to the Freshman Class

Students who are undecided as to whether they should enter the teaching rofession are invited to come to the College for personal interviews. All candiates for the freshman class should file their applications with the Registrar before ebruary 1st of the year in which they wish to take the entrance examinations.

- A. Requirements for Admission as adopted by the State Board of Education.
 - Entrance Examinations
 All applicants for admission to the freshman class shall take examinations prepared under the direction of the Commissioner of Education.

Eligibility for Taking Entrance Examinations
To be eligible to take the entrance examinations for admission an applicant



shall furnish the following credentials on the appropriate forms obtainable from the office of the Registrar.

a. Age certification

A statement of date of birth. Applicants shall be at least fifteen years nine months old before taking the entrance examinations.

b. Health report

A report from the family physician concerning the student's condition of health. This report shall be made on a form furnished by the College.

c. Testimonial of character

A testimonial of good moral character from responsible persons not related by blood or marriage to the applicant on a form furnished by the College.

d. High School rating

A rating of the student's character and probable fitness to succeed in college courses. This rating shall be made by the officials of the applicant's secondary school on a form furnished by the College.

e. Certificate of graduation

A certificate showing graduation from the twelfth grade of an approved secondary school or showing that the applicant is scheduled for graduation during the current scholastic year. The units to be accepted for admission to the College are prescribed by the Commissioner of Education as follows:

English	Units 4
Mathematics American History and Problems of Democracy Science	2
Foreign Language Additional Social Studies, Science, Language, or Mathematics	2 3
Total	15

- (1) Upon recommendation of the high school principal concerned substitutions for the units listed above may be made for an applicant who is in the highest quarter of his graduating class. When a request for a substitution of this kind is made, it will be considered by a special committee consisting of the head of the major department concerned, the Director of Admissions, and the Dean of Instruction. If the above named committee recommends that a substitution be made, the recommendation will be referred to the President of the College for a final decision.
- (2) Candidates for the Business Education, Fine Arts, Home Economics, and Industrial Arts Curricula may substitute two units of work in these subjects for the Language entrance requirement.
- f. Filing official transcripts of graduation
 Applicants who have not filed an official and complete transcript showing
 graduation from high school before the date of the entrance examinations
 shall do so before registration in the College.
- 3. Physical Examination

At entrance all candidates must be examined by a physician selected by the College to determine whether they are free from any disease or infirmity which would unfit them for teaching; and an examination by this physician may be required of any student at any time in his course, to determine whether his physical condition warrants his continuance in the College.

The State also requires all students to submit evidence each year of freedom from tuberculosis. The College endeavors to provide suitable tests each year

for the student at a minimum of expense.

4. Speech Entrance Test Each candidate for the freshman class and all students seeking admission with advanced standing will take a speech entrance test. Candidates with serious difficulties may be refused admission, or admitted conditionally.



B. High School Prerequisites for College Majors and Minors.

The major and minor fields of interest that are offered students by the College are discussed under College Curricula (Page 63 and following). The College recommends that students include in their high school credits at entrance the number of units indicated in the following table for the subjects in which they intend to specialize:

• • • • • • • • • • • • • • • • • • •	High School Units Recommended
Majors	
Business Education	2
English	. 4
Fine Arts	. 2
French, Latin, or Spanish	2 to 4
Home Economics	. 2
Industrial Arts	
Mathematics	21/ /
Music	4 4
Science	
Social Studies	
Speech (if possible	
Minors Accounting and Business Practice	. 1
Biology	
English	. 2 to 4
French, Latin, or Spanish	
Geography	
History	
Mathematics	
Music	
Physical Education	
Physical Science	1 to 2
Political Science and Economics	
Secretarial Studies	
Social Business	1
Speech (if possible	\ 1

II. Admission to the Sophomore, Junior, or Senior Class

A limited number of students may be admitted with advanced standing. To be eligible, a candidate must have had at least a year of college work. The acceptance of such a candidate is dependent upon his scholarship, as evidenced by the credentials submitted, personal fitness, and the possible number of vacancies in the class for which he is eligible. Definite acceptance of candidates for advanced standing cannot be made long in advance for any given semester. Students wishing to apply for admission on advanced standing should write for the necessary form of application to the Registrar, State Teachers College, Upper Montclair, New Jersey, no later than December 15th for Spring-Semester admission and July 15th for Fall-Semester admission.

III. Admission to the Graduate Division

Application blanks for admission to graduate work may be secured from the Chairman of the Graduate Committee.

Official transcripts of all undergraduate work must accompany the written application. No action is taken until such transcripts are received.



Upon receipt of the application blank and the transcripts of undergraduate work, the student is asked to have personal conferences with the department adviser of the department in which he wishes to major, and with the Chairman of the Graduate Committee. These conferences are a prerequisite to the action of the committee on admission. The student is notified in writing as to whether or not he has been accepted.

For more complete information see the Graduate Bulletin.

Placement Bureau

See the Department of Professional Integration, Page 49.

The Alumni Association

All graduates of Montclair are members of the Alumni Association and active members if they pay dues. Association officers, the Executive Board, and faculty members of the College, plan yearly the schedule of events to which all graduates and their guests are invited. The alumni publication is mailed to each graduate several times a year, telling of activities of the College, the faculty, and the alumni.

The Association strives to establish and continue lasting friendships and contacts of both social and professional natures among its members and between graduates and the College.

NUMBER OF GRADUATES

Normal School Diplomas—3,921

A.B. Degrees—5,233

A.M. Degrees-1,721

ALUMNI OFFICERS, 1957-1958

President	WILLIAM BINGHAM, '50
Vice-President	ELIZABETH STAMBOLION, '42
Recording Secretary	
Treasurer	
Assistant Treasurer	JOHN KORLEY, '50
Resident Alumni-Secretary	DOROTHY BRYAN KOONS

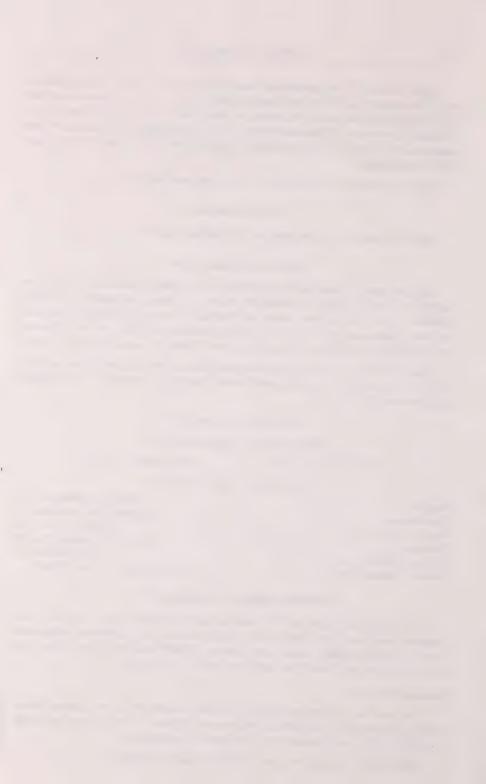
ADMINISTRATIVE ORGANIZATION

The College is organized for administrative purposes into three divisions: business administration, instructional administration, and personnel administration. These divisions are under the direction of the President of the College and the Administrative Council in cooperation with the faculty.

Business Division

The business division has charge of financial matters such as appropriations, receipts, expenditures, inventories, audits, and reports. This division also superintends buildings and grounds, and food-service operations.

Students pay their tuition and fees at the Business Office.



Instructional Division

The instructional division centers its interests in curricula, teaching materials, teaching and supervisory programs, and teaching procedures. The Dean of Instruction is assisted by the Registrar, the heads of departments, the librarians, instructional committees, and general staff.

Students who wish advice or help in matters related to courses, programs of studies, advanced standing, instructional procedures, and scholastic clubs consult the Dean of Instruction, the Registrar, department heads, and staff advisers.

Matters pertaining to records, reports, credits, and schedules are discussed with the Registrar.

Personnel Division

The personnel division has the responsibility of promoting the physical health, mental health, work habits, and social life of all students. The following staff members are engaged in personnel work: Director of Personnel and Guidance, college physician, college nurse, mental hygiene and psychology instructors, research director, Dean of Women, Dean of Men, Veterans' Counselor, dormitory hostesses, staff and student advisers, psychiatric consultant, and referral services.

The personnel division endeavors to become familiar with the abilities, interests, and needs of all students through personal interviews, counseling, testing, keeping records, and providing for adequate personnel services.

LIBRARY

Conveniently located on the main floor of College Hall is the library of 67,500 volumes with a spacious reading and reference room and two smaller reading rooms housing the music collections and the curriculum laboratory and textbook exhibit. Special collections include the Howe collection of organ music; the Mark Andrews music library; the Webster Memorial collection of modern poetry, including many first editions and autographed copies; the Finley collection of science textbooks, which has been augmented by early textbooks of historical significance from other sources; the Carnegie Secondary Art set of books and pictures; a collection of New Jerseyana; and a recent outstanding gift, the Roy W. Hatch collection of Lincolniana. Of special interest is the China Institute Library of more than 400 titles, a permanent loan from the China Institute of New Jersey. The textbook collection of 5,300 volumes includes the most recent textbooks in all subjects on both the elementary and secondary level and curricula from the majority of communities and counties of New Jersey as well as outstanding curricula from other states. The library also maintains a complete file of bulletins of the U.S. Office of Education for which the library is designated as an official depository library in the area. An up-to-date and widely-used-file of pamphlets, maps, and pictures, classified by subject, is available to all students.

In keeping with the policy of the College as a whole, the field of education is especially complete, and at the same time the subject-matter fields are all well



covered on both the graduate and the undergraduate level with a well-rounded collection, including an outstanding group of books, portfolios, and reproductions of modern art. Reading for fun and enjoyment is stimulated by the constantly changing group of "Recent Books" conveniently located in the library foyer.

All of the books, including the reference collection, are on open shelves to which the students, as well as faculty, graduates, and teachers-in-service, have access and borrowing privileges. This open-shelf policy applies even to the periodical collection which consists of back issues of all but the most ephemeral of the 320 currently received periodicals. Bound volumes of magazines total over 2,500.

Supplementing the College library is the library of the College High School which is a large, pleasant room housing 4,124 volumes and located in the College High School. These books are catalogued at the College library and are available through the main catalog as well as through the catalog of the College High School. The High School Librarian works in close cooperation with the four members of the College library staff, particularly in the field of literature for adolescents, in which an extensive and up-to-date collection is maintained.

BUREAU OF FIELD STUDIES

The Bureau of Field Studies offers thirteen educational travel courses covering all parts of the United States. They are described in various sections of this bulletin, and more details are given in bulletins published from time to time. Social Studies 302, Field Studies in Urban Life, is required of the social studies majors in their junior year. The other field studies courses are elective.

NEW JERSEY STATE SCHOOL OF CONSERVATION

The six State Teachers Colleges, the State Department of Education, and the State Department of Conservation and Economic Development jointly operate the New Jersey State School of Conservation at Lake Wapalanne in Stokes State Forest, Sussex County. Courses offered include field studies in biological and physical sciences, conservation of forests and wild life, conservation of soils and water, arts and crafts, field science for elementary teachers, water safety and first aid, camping education, rural sociology, and related subjects.

The facilities at Lake Wapalanne are unusually good. The camp buildings were constructed by the Civilian Conservation Corps and include a dining hall, an infirmary, an administration building, an assembly-recreation-library building, a staff lodge, bath-houses, latrines, and twelve living cabins.

Descriptions of course offerings at the New Jersey State School of Conservation are contained in special announcements which may be had from the New Jersey State Teachers College at Montclair.

THE GRADUATE DIVISION

Graduate courses were first offered at the State Teachers College at Montclair in the summer term of 1932 and have been offered in all regular and sum-



mer sessions since. In order that the work may be available to teachers and administrators in service, the courses are scheduled during the academic year in the late afternoons, evenings, and on Saturdays. The courses are given by the members of the college staff and are granted residence credit; thus, it is possible for teachers-in-service to earn a Master's degree without taking a leave of absence from their teaching positions. That the College is advantageously located for such work is shown by the fact that the majority of the high-school teachers of the State are within a radius of twenty-five miles of the campus.

From the time graduate courses were instituted there has been an enthusiastic response to the work. There are now more than six hundred students matriculated for the graduate degree. Among the institutions of higher learning from which these matriculants come are: Barnard, Colby, Colgate, College of St. Elizabeth, Columbia, Cornell, Drew, Duke, Lafayette, Douglass, New York University, Oberlin, Pennsylvania, Rutgers, Swarthmore, Syracuse, Tufts, Vassar, and Wheaton.

The work is organized to care for two groups of graduate students; those who are teaching and wish to take courses in the late afternoons, evenings, and on Saturday mornings, and those who wish to do full-time residence work. It is also organized for two types of students as regards previous preparation; graduates of liberal arts colleges, and graduates of teacher-training colleges. Some of the education courses required for certification in the State of New Jersey may be taken on the graduate level. The number of credits so earned which may be applied on the A.M. degree, of necessity, varies according to the graduate requirements in the various major areas of specialization. Inasmuch as no graduate credit is given for supervised student-teaching, graduate students from liberal arts colleges, as a rule, spend a college year and a summer term or an additional semester to meet State requirements for certification and the conferment of the Master's degree. The time required depends upon the character and amount of undergraduate credits.

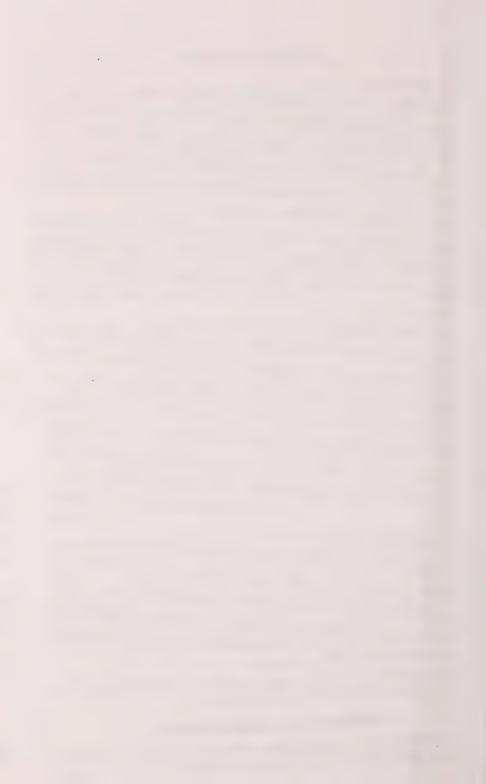
Majors in graduate work are offered in the fields of Administration and Supervision, Biology, Business Education, English, Industrial Arts, Mathematics, Personnel and Guidance, Physical Science, Science, and Social Studies. In each curriculum there is a core of educational courses and major subject-matter courses. The amount of each type of work depends on the candidate's undergraduate work and is determined by the Graduate Committee. The curricula in Administration and Supervision and in Personnel and Guidance are limited largely to specialized professional courses in order to meet State certification requirements.

For admission requirements, see page 23.

Students interested in this work are advised to write to the Chairman of the Graduate Committee for a bulletin and full information.

OFFERINGS FOR TEACHERS-IN-SERVICE

The College now offers senior-graduate and graduate courses on campus during the late afternoon, evening, and Saturday morning, and off campus in various



centers, for the convenience of those desiring professional growth through these means.

Part-Time and Extension Courses

Part-time courses, carrying residence credit, for students unable to attend the College during the regular full-time daily program-hours are offered on the campus on Tuesday and Thursday afternoons, from 4:15 to 6:00 p.m.; on Tuesday and Thursday evenings from 7:15 to 9:00 p.m.; and on Saturday mornings from 8:45 a.m. to 12:30 p.m.

Courses of the Extension Division are offered off-campus in any community in New Jersey in which the teachers-in-service desire the New Jersey State Teachers College at Montclair to offer a particular course and if that course appears in either the Undergraduate Catalog or the Graduate Bulletin of the College. It is necessary that twenty or more students enroll in such an Extension course.

Bulletins are published for the information of those who wish to attend part-time or extension courses. Courses which meet for one two-hour session a week for sixteen weeks receive two semester-hours' credit. Credits gained in part-time and extension courses are accepted toward a degree or a secondary teacher's certificate. Only those students should register who are willing to meet the full requirements and take all examinations. Permission may be granted in special cases for students to take work for no credit. Other information, including bulletins, may be obtained from the Director of the Part-Time and Extension Division, State Teachers College, Upper Montclair, New Jersey.

Summer Session

Those who are eligible for admission to the summer session are: (1) elementary, junior, and senior high school teachers; (2) undergraduate and graduate students of liberal arts colleges seeking secondary certificates; (3) graduate students seeking the Master's degree; (4) experienced teachers seeking administrator's and supervisor's certificates; (5) graduates of the two and three-year normal school courses who are working for a Bachelor of Arts degree; (6) normal school, teachers college, and liberal arts college students, who have been permitted to meet certain requirements through summer session courses; (7) laymen who may wish to take certain courses because of their cultural interest; and (8) high school graduates.

The summer session is attended by approximately six hundred students, representing about seventy-five teachers colleges, liberal arts colleges, and universities located in many states. Of these, somewhat fewer than one-quarter are undergraduate students; approximately eighty per cent hold bachelor's degrees; and about five per cent hold master's degrees. Because of the preponderance of graduate students a minimum of undergraduate courses is offered in the summer session.

The summer session begins during the last week of June or the first week of



July and extends over a period of six weeks. For other information, including bulletins of the summer session, address the Director of the Summer Session, State Teachers College, Upper Montclair, New Jersey.

The Laboratory School

See The Laboratory School-Page 42.

Part II

STUDENT PERSONNEL AND ACTIVITIES

STUDENT INTERESTS AND ACTIVITIES

Orientation and Guidance of Freshmen

Under the direction of the Personnel Division and with the help of students and faculty members during the first week of the College year, freshman students report for examinations, organization meetings, social functions, conferences, and instructions. The Student Government Association is active in its cooperation. It explains and discusses various student clubs, privileges, and responsibilities. Staff members meet the new students for personal interviews, and during the semester group meetings are held with advisers. In general, Freshman Week is a time for orientation, adjustments, guidance, instructions, examinations, and social contacts.

General Citizenship

A spirit of readiness to understand objectives and to assume responsibilities grows out of Freshman Week. Each student realizes that he has become part of a State enterprise and of an active group of professional workers. Social and professional consciousness begins to take the place of individual motives.

From the first day each student is expected to make definite contributions to the welfare of his associates and to the life of the College. In fact, any student who cannot demonstrate initiative and leadership through cooperation and service should not train for the profession of teaching.

Student Government Association

The Student Government Association is composed of all undergraduate students. Its governing body is the Board of Trustees which includes a president, vice-president, treasurer, assistant treasurer, recording secretary, and corresponding secretary who are elected by the entire student body; the president and two representatives of the Senior, Junior, and Sophomore Classes, and the president and one representative of the Freshman Class who are elected by their respective classes; the Dean of Instruction; and one financial adviser appointed by the Administration, the Director of Personnel, and the Dean of Women, who are non-voting advisory members.

The responsibilities of the Board include the handling of all student finances, the chartering and cancelling of all clubs, improvement of social and physical welfare, extra-curricular activities, and the general conduct of the student body. Its aims are high; its spirit is excellent; and it accomplishes a great many good things.

Committees appointed by the Board of Trustees include the following:

Recreation Rooms Assembly Liaison Awards Lights, Sound, Camera Snack Bar Men's Athletic Commission Social Bulletin Boards Music Organization Commission Soliciting Citizenship State Teachers Colleges Constitutions Parking Public Relations Inter-Relations Elections

Clubs chartered by the Board of Trustees include the following: Agora (Men's Organization) Men's Athletic Association Aldornia (Honorary English Club) Newman Club Orchestra (M.O.C.) Aphesteon (Honorary Mathematics Club) Phi Lambda Pi (Men's Organization) Band (M.O.C.) Booster Association Phi Sigma Epsilon Bureau of Student Publications (La Cam-Players Pi Omega Pi, Beta Sigma Chapter (National pana, Montclarion, Quarterly) Cheerleaders Honorary Business Education Society) Choir (M.O.C.) Pro Musica (Honorary Music Society) Christian Fellowship Rohwec (Honorary Social Studies Club) Clio (Social Studies Women's Club) Science Club Dalphac (Women's Organization) Senate Dance Club Sigma Alpha Eta English Club Sigma Delta Pi (Women's Organization) Epsilon Mu Epsilon (Business Education Sigma Eta Sigma Sigma Phi Mu (General Mathematics Club) Club) Fencing Club Spanish Club Forum (Men's Discussion Cub) Spectrum Tau Sigma Delta French Club Future Teachers of America Theta Chi Rho Gamma Theta Upsilon Thirty Club Geography Club Home Economics Club Television Club International Relations Club Veterans Club Inter Nos (Classical Language Club) Wapalanne Club Kappa Delta Pi (National Honorary Society Women's Athletic Association

in Education)

Music and Art

Cultural background courses in music and art are required of all students. In uddition, music electives and the musical organizations of the College provide opportunities for further study in fields of special interests. For requirements for major or minor in music, see page 120.

The musical organizations of the College include:

1. The A Cappella Choir

The Orchestra
 The Band

Collegium Musicum
 The Opera Workshop

6. The Music Workshop, including various types of vocal and instrumental ensembles

Sunday evening concerts are given throughout the school year by guest artists, nusic faculty, and advanced music students.

Because of the proximity of New York City, the College is able to offer unusully fine opportunities in music. Field trips are frequently made to the Metropolian Opera, the New York Philharmonic Orchestra, and Town Hall concerts.

The Art Workshop gives all students an opportunity to work creatively with various artistic media—oil paints, water colors, block and silk screen prints, pastels, clay, plaster, and stone. The Workshop includes a ceramic studio complete with potters' wheels, kilns, and a glaze laboratory.

Frequent field trips are taken to art museums in New York City and the metropolitan area.

Dramatics

Work in dramatics is varied and comprehensive. In the classroom dramatic literature is studied in historical perspective, as an art-form and as a mirror of social institutions. The production of high school and college plays is studied and practiced in technical courses in which instruction in acting, stage-craft, make-up, lighting, costumes, and directing may be obtained.

Players, an undergraduate club, sponsors two major productions a year. Use of the auditorium of the College High School as a Little Theatre enables Players to present repeated performances of each production. This invaluable experience in the solution of problems facing the high school dramatics director is available to any student in the entire college. Players also sponsors an annual Drama Day at which the dramatic organizations of high schools are invited to present their work for professional criticism.

The amphitheatre affords an ideal setting for assemblies, festivals, dance recitals, pageants, and plays adapted for the outdoor theatre.

Assembly Programs

During the year a series of assembly programs is offered for the cultural benefit of the students and faculty. These programs include presentations by outside artists, student recitals and dramatizations, and student government meetings. These assembly programs are an important part of the college offering for students, and students are expected to participate regularly.

Student Exchange with French and Spanish-Speaking Countries

The College has prepared a program of teacher training in the field of modern foreign languages. After successful completion of the prerequisite years of high-school French or Spanish, language study is continued at Montclair in classes conducted entirely in French or Spanish. If the student has shown promising aptitude in his foreign language work during his freshman, sophomore, and junior years, he may be offered the opportunity to study abroad for a year in some foreign teachers college or university, under Montclair auspices. Students go to France, Canada, Spain, Mexico, or South America.

During the year of study abroad, these Montclair students follow a comprehensive program of work, including classes in language, literature, history, art, music, psychology, etc., working with their French or Spanish-speaking classmates, submitting to the same kind of discipline, enjoying their pleasures, and

experiencing their daily routine. In addition to scholarly achievement that cannot be equaled by any amount of classroom work in college, this year of study gives students a broad outlook on life, a sympathetic attitude toward the problems of other peoples, and an understanding of world citizenship—in fact, a life experience that is bound to make them better teachers of foreign languages for American high school boys and girls.

College Athletics

The College provides two athletic fields; two gymnasiums; a new health, physical education, and recreation building; and other facilities for promoting recreational activities. The principal sports for men normally include football, basketball, baseball, track and field, golf and tennis. College varsity teams in football, basketball, baseball, tennis, track, golf, fencing, and bowling maintain in normal years full schedules with colleges located in five eastern states and the District of Columbia. The College junior teams play scheduled games within the State. Intramural athletics are promoted.

The women's athletic activities normally include volley ball, basketball, softball, tennis, golf, archery, and fencing. WAA is a very active undergraduate organization and sponsors a variety of intramural competition, sport days, and invitation games. The Modern Dance Club, while not an athletic activity, is an important part of the women's activity program.

Publications

The Student Handbook supplies instructions, Student Government Association rules, descriptions of organizations, songs, cheers, and other matter of special value to new students.

The Montclarion, the student news publication, covers a variety of subjects of special interest to students. It is published semi-monthly.

The Montclair Quarterly is the student literary magazine published by the student body.

La Campana, the college annual, is published each year by the Senior Class and contains general information of special value to graduates and their friends.

The College High Crier, student newspaper of the College High School, affords college students an opportunity to learn advisership through working with the young high school editors.

La Campanilla, the yearbook of College High School, is sponsored and published by the senior class of College High School.

Publications of the Bureau of Field Studies include pamphlets and leaflets describing field studies.

Publications of the Teaching Aids Service of the College Library include lists of audio-visual aids in many subject matter fields.

Dormitory Life

The regulations governing dormitory life and the opportunities for social affairs, entertainments, and athletics are made with the cooperation of and promoted by the College President, the Dean of Women, the Dean of Men, the Director of Personnel, the Dormitory Hostesses, the Honor Board of the Women's Inter-Dormitory Association, the Resident Director of the Men's Dormitory, and the Council of the Men's Dormitory.

STUDENT PERSONNEL ADJUSTMENTS

The accomplishments of individual students depend upon their energy, adaptability, and general personal fitness. Therefore, the College invests profitably in promoting the physical health, emotional stability, and social attitudes and habits of all students.

Physical Health

The State Teachers College is located on an elevation in clean, open country. The campus furnishes adequate facilities for healthful outdoor exercises, and the gymnasiums provide for physical education, indoor sports, and dances.

The College employs one full-time physician, one full-time nurse, and two resident nurses who give the students thorough physical examinations and advise them in regard to medical attention and correction of defects. The College conducts an annual tuberculosis program with chest X-rays of students and other College personnel. An annual physical examination by the College physician is required of all students. The health of the dormitory students is guarded with special care. Infirmaries are maintained in Edward Russ Hall and in Chapin Hall under the supervision of the College physician. The Dean of Women, the Dean of Men, and the Director of Personnel and Guidance advise concerning health facilities and conditions. During the entire year, including the summer months, a full-time nurse lives in the dormitory in order that she may serve dormitory students and oversee the general health conditions of all students. A voluntary Medical Reimbursement Insurance policy is available to students at \$13.50 per year to help pay hospital and surgical bills incurred as a result of illness or injury.

Mental Health

In the freshman year the course in Mental Hygiene and Personal Adjustment serves to provide for group discussion of problems of personal and professional orientation to college life.

Students are responsible to their advisers for individual conferences. Advisers are free to formulate and carry out their own plans for serving individual and group needs of students assigned to them.

The student advisory and guidance program is extended so that it reaches the whole student body. All students are encouraged to make contacts with staff members in an informal fashion so that they may profit from a more personal

relationship than that of the more formal classroom association. Special problems of adjustment which arise from time to time are referred to the psychology and mental-hygiene staff. Students who are in need of medical and psychiatric assistance are aided in obtaining proper diagnosis and treatment. It is desirable that students avail themselves of the opportunities offered by such types of service.

An organized sequence of courses is planned for graduate students who wish to prepare for guidance work in the public schools. A Master's degree in Guidance is granted to students who complete this work satisfactorily. Full descriptions of courses may be found in the Graduate Bulletin.

College Social Activities

A program of social activities with emphasis on social and recreational value is encouraged each year by the College Social Committee. All-College dances are sponsored by the Student Government Association; class and club dances, social affairs, banquets, and shows are sponsored and run by their respective organizations. The dormitory Thanksgiving, Christmas, and Easter dinners, the All-College Carnival, and many other affairs have become traditional in the life of the College.

Scholastic Adjustments

Lack of scholastic adjustment may be due to physical health or emotional instability, and in either case should be understood and remedied. There may be other cases where individual students need scholastic guidance. It is not uncommon for students' subject-matter interests to change and for students to require transferral from one course to another or from one department to another. Furthermore, students are sometimes troubled by their ratings and schedules, and frequently the matter of study habits demands careful analysis and directed training. Various types of adjustments may be made in classroom situations by providing a better understanding of troublesome problems and thereby relieving tension. All problems of adjustment are considered in the spirit of helpfulness.

Financial Adjustments

The College is not prepared to render financial help in every case where help is needed. Yet it is in a position to assist many of those who are particularly deserving. Assistance is commonly rendered through loans and student employment. This program is administered through the Director of Personnel and Guidance.

State Scholarships

The state legislature awards annually to the State Teachers Colleges a number of scholarships not to exceed ten per cent of the number of freshman students. Those students who are applying for admission to a State Teachers College and who wish to compete for a scholarship are invited to write to the Director of Personnel and Guidance and request a scholarship application blank.

Work Scholarship Funds

The State offers deserving students the opportunity to do socially desirable work of such a nature as may be provided in the College library, laboratories, and offices. These scholarships cover tuition.

Edward Russ Scholarship Fund

This fund was established from the residue of the estate of the late Edward Russ. The proceeds of this fund are used to assist deserving students who, through scholarship and personal fitness, offer assurance that they will make especially valuable contributions to the profession of teaching.

Chapin Memorial Fund

This fund was established by the Alumni Association in honor of the late Dr. Charles Sumner Chapin, Principal of Montclair State Normal School. It is incorporated under the direction of a board of trustees. Loans are made principally to upper class students and always on the basis of the candidate's personal and scholastic fitness for the profession of teaching, as well as the candidate's financial need.

Applications for loans are made through the office of the Director of Personnel. Each loan must be secured by at least one property owner.

Scholarships

A few scholarships are granted to students of marked personal fitness and of accomplishments in special fields. Candidates for such scholarships should contact the Director of Personnel and Guidance.

John C. Stone Scholarship

This fund was established by the friends of the late Professor Emeritus John C. Stone in memory of his contribution to education. The proceeds are used as a scholarship for mathematics majors.

Margaret B. Holz Fund for Student Exchange

This fund was established for college students who study abroad for at least one year under the direction of the Foreign Language Department. The exchange student movement at Montclair was conceived and developed by the late Professor Margaret B. Holz, and it was in her memory that a fund of \$3,000 was created. The proceeds of the fund provide financial assistance to those members of the Modern Foreign Language Department who need financial aid in order to study abroad.

Field Studies Fund

This fund was established by Dr. Harold S. Sloan, a professor at the College from September, 1929, to June, 1936. The interest on an investment of \$10,000 is used for the development of the work of the Bureau of Field Studies.

Clarence O. S. Howe Memorial Organ Fund

The fund provides organ scholarships each year from the income derived from this memorial to an old friend of the College.

Student Employment

The financial condition in many homes has changed considerably in the past few years. The College wishes to cooperate with worthy students who earnestly desire to follow through the four-year college course. This is often done by affording to students an opportunity to participate in various types of work off campus. Opportunities for such work are arranged through the offices of the Dean of Women and the Director of Personnel and Guidance.

Part III

THE COLLEGE CURRICULA

FUNDAMENTAL PRINCIPLES

The content, organization, and instructional procedures of the various curricula and courses are guided by the following principles:

- (1) The definite objective of a professional college makes certain requirements necessary, yet in so far as practicable the special interests of individual students should be recognized.
- (2) After the major and minor fields of specialization have been chosen, there should be comparatively little opportunity for free elections.
- (3) Each curriculum should provide a basis of required background courses and professional activities.
- (4) Each curriculum should provide for an understanding of the aims and organization of secondary education and for guidance and skill in selecting, organizing, and presenting instructional materials.
- (5) Each curriculum designed to prepare secondary-school teachers should make adequate provision for specialization.
- (6) Subject-matter should be treated professionally.
- (7) The courses and activities in a given curriculum should be sequential and integrated.
- (8) Courses should be broadly humanizing and should be related to what takes place in society and what is done in school.
- (9) The demonstration school should be the laboratory and integrating center of all courses and all curricula.
- (10) General educational theories and techniques should be exemplified in regular class instruction and frequently demonstrated in the laboratory school.
- (11) The relative value of the elements of the professional instruction should be checked by the strengths and weaknesses of the college product.
- (12) The curricula and courses of the College are the servants of a changing society, and therefore should be subject to continual adjustment.

The above principles are recognized by the staff as basic to the organization and development of the college curricula. They have directed and unified the work of the staff in its selection, organization, and treatment of curricular materials.

Students should recognize that a professional school has, by its very nature, definite aims and objectives, and therefore practical reasons for preparing and requiring certain fundamental types of work. Such requirements are characteristic of professional schools generally. It is, however, the purpose of the College to recognize the interests and aptitudes of individual students and to be guided by these, provided that they do not lead to haphazard and unsystematic selections and procedures.

The instructional work of each curriculum is divided into three areas: (1) professional background; (2) professional integration; (3) professional subject matter. Each of these areas is described in the paragraphs which follow.

GENERAL ORGANIZATION OF INSTRUCTION

The organization of the College for instructional purposes is in accordance with the Principles numbered 1 to 11, as stated on the first pages of Part I of this catalog.

Relations to the Schools of the State

The college staff recognizes its relationship to the junior and senior high schools which it serves. The following contacts are maintained:

Close relationships are maintained with the State Department of Education through its Commissioner of Education and Assistant Commissioners.

The State Director of Teacher Education is in continual contact with the officers

and directors of secondary education and with the College.

Frequent conferences on problems of secondary education are held on the campus.

General conferences with city and county superintendents, supervising principals

a. General conferences with city and county superintendents, supervising principals, and junior and senior high-school principals.

 Conferences with high-school executives devoted to special problems in the secondary fields.

 Department conferences with heads of departments and teachers in the respective fields.

The College collects and analyzes curricula which are administered in the various high schools in the State.

The College has contacts with various junior and senior high schools through its supervisors of student-teaching and through the representatives of various subject-matter departments.

The Collège contacts the secondary schools and becomes familiar with their needs through its Placement Bureau and follow-up service.

The College cooperates with various secondary school officials and agencies in making research studies.

Principals, heads of departments, and teachers visit college classes and classes in the College High School from time to time.

FIELDS OF INSTRUCTION

The general instructional division of the College has three well-established functions. The first is to provide each student with a rich background. The second is to provide professional subject matter which includes ample margins of scholarship. The third is to provide professional theories and techniques and their application in student-teaching. Each of these three departments of the instructional division is discussed briefly in the following paragraphs.

Professional-Cultural Background

Every teacher who is to recognize and use the many-sided interests of a normal high school pupil must have a broad philosophy of life and a human interest in the life-experiences of youth in present-day society. Furthermore, every teacher who is to specialize in a field of knowledge which is somewhat narrow should be familiar with the interests, activities, and problems of present-day society as they are related to the subject-matter of his field of specialization. In order to meet these professional needs the College requires that every student, regardless of major and minor fields of specialization, do two things. First, he must become familiar with the social, political, economic, industrial, scientific, religious, literary, and aesthetic phases of life. Second this background of culture

should be a body of related and well-assimilated knowledge rather than a collection of isolated parts. In other words, the interdependence of each of the phases of life mentioned above should be recognized and made meaningful.

The professional-cultural background courses comprise nearly one-third of the total college requirements for graduation. The specific requirements may be found in Part III under the heading of Professional Background Requirements.

Professional Subject-Matter

Professional subject-matter refers particularly to courses in the student's major and minor fields of specialization. It is thought of as departmental specialization built upon the related and fundamental body of knowledge which has been called professional background.

Every high school teacher should have thorough command of the subject-matter in his special fields of instruction. This subject-matter does not include merely the bare requirements for the prescribed work in high schools. It does include such scholarship as will stimulate a true intellectual curiosity and provide for rich margins of knowledge.

Each student is required to complete a minimum of thirty semester-hours in his major field of interest in addition to the units required of all students and eighteen semester-hours in his minor field of interest. It has been the policy of the College since its organization in 1927 to recognize that its professional duty as a teachers college is to treat its subject-matter professionally, that is, to provide not only for an academic knowledge of subject-matter but also a teaching knowledge of that same subject-matter. A teaching knowledge requires an understanding of the way in which subject-matter is to be organized for teaching purposes and how it may be presented to the best advantage under varying conditions to high-school students.

Department of Professional Integration

The prospective secondary-school teacher should have not only an adequate cultural background and a thorough teaching knowledge of subject-matter in his special fields, but also a teaching knowledge of adolescent pupils and an understanding both of the processes involved in their instruction and of the part played by education in contemporary society.

The fact that the techniques used in the professional treatment of subject-matter cannot be divorced from the subject-matter itself makes it apparent that there must be a close relationship between the subject-matter departments and the department responsible for training in the theories and methods of education. (See also Part III for descriptions of courses.)

This Department offers courses in the psychology and philosophy of secondary education, in various techniques and methods of teaching, and in the principles of administration of both elementary and secondary schools. Fourteen semester-hours of work in this department are required of each student, besides ten semester-hours for student teaching, two semester-hours for health education, and three semester-hours for a special methods course in the student's major field.

Curricula for home economics, fine arts, industrial arts and music lead to certification to teach in elementary and secondary schools. Professional education for these curricula include organization, principles and techniques, observation and experience on the elementary school level in addition to similar provisions on the secondary school level.

In the present emergency due to increasing enrollments and teacher shortages in the elementary schools, additional courses in elementary-school teaching are offered to students. These courses lead toward a limited elementary-school teaching certificate. They serve two purposes: to prepare the student for possible elementary-school teaching in the present emergency, and to give him a fuller understanding of both the background of high school pupils and the work of the entire public-school system.

Observation of classes in the College High School is required of students throughout the four years of their college course, beginning with directed observation in the freshman year, and ending with an intensive program of observations in the student's major subject, closely coordinated with the course in methods of teaching his major subject.

Twelve weeks of student-teaching in a public school are required of each student. This experience is planned and arranged by the Department of Professional Integration and supervised by members of the department and of the student's department of major interest.

Summary of Course Requirements for the Bachelor of Arts Degree

I PROFESSIONAL BACKGROUND COURSES	Semester-Hours
Soc. St. 100A and 100B Civilization and Citizenship	6
Soc. St. 200A and 200B Contemporary American Life	
Eng. 100A and 100B World Literature	
Eng. 200A Composition	
*Eng. 200B Fundamentals of Speech	
Lang. 300 Foundations of Language	
Fine Arts 100 History and Appreciation of Art	
Music 100 Music Appreciation	
‡Either Sci. 100A Survey of Physical Science	4
or Sci. 100B Survey of Biology	
Sci. 100C The Earth Sciences	
Health Ed. 100 Healthful Living	2
Math. 300 Social and Commercial Uses of Mathematics	2
§Math. 400 Educational Statistics	2 40
II PROFESSIONAL INTEGRATION COURSES	
Int. 100 Mental Hygiene and Personal Adjustment	2
Int. 200A Child Growth and Development	
Int. 200B Adolescent Psychology and Mental Hygiene	<u>2</u>
Int. 300A Aims and Organization of Secondary Education	2
Int. 300B Principles and Techniques of Teaching in the	April
Casan Janes Calanal	2
Int. 400A Principles and Philosophy of Secondary Education	2
Int. 400B Practicum in Secondary Education	2 14
int. 4000 Fracticum in Secondary Education	2 14

^{*} Speech majors and minors take English 103 in lieu of English 200B.

‡ Science majors take Mathematics 101 in lieu of either Sci. 100A or Sci. 100B.

[Mathematics majors take Mathematics 308 in lieu of Math. 300.

§ Mathematics majors take Mathematics 408 in lieu of Math. 400.

Ш	SUPERVISED STUDENT TEACHING	10	10
IV	COURSE REQUIREMENTS IN MAJOR SUBJECT FIELD Minimum Number of Semester-Hours in Major Field	30	
	A methods course in major field	3	33
V	COURSE REQUIREMENTS IN MINOR SUBJECT FIELD Minimum Number of Semester-Hours in Minor Field	18	18
VI	ELECTIVES	13	13
		13	1)
VII	PHYSICAL EDUCATION		
	Two hours a week of gymnasium work for four semesters	2	2
			130

THE LABORATORY SCHOOL

The College High School

The College High School is an integral part of the College's program of teacher education and educational research. Located in a building equipped for the regular classes and activities of a six-year high school, it serves the College faculty as a continuously available testing ground for theory and procedure. Here, also, prospective teachers have opportunities for systematic observations of classroom problems and for the detailed study of the individual adolescent.

A special feature of the laboratory school is its intimate coordination with the College curriculum. In many instances, College methods classes are conducted as theoretical preparation for demonstrations in the College High School classroom where the human element inevitably becomes the final arbiter of educational values. The closest possible correlation of theory and practice is, thus, achieved. Teacher training and educational research gain a realistic foundation in their observed benefits to youth of high-school age.

Organizationally, too, the College High School is a component part of the total program of teacher education. The director, who plans and administers the six-year secondary curriculum, is also a teaching member of the College faculty. Heads of subject-matter departments in the College also serve as heads of the corresponding departments of the College High School. College faculty members are responsible for all high-school instruction.

CREDITS AND STANDARDS

Credits

The College is organized on the semester basis. A semester-hour is to be interpreted as work done in the classroom for one hour a week during a period of eighteen weeks. The average student load for any one semester is sixteen semester-hours of prepared work a week. Thirty-two semester-hour credits should be earned during each college year. One hundred and thirty semester-hour credits are required for graduation. Permission to carry more than the customary amount of work is granted only to those who have demonstrated marked ability. It is definitely understood that students are retained in the College only so long as they do satisfactory work.

Rating System

Marks indicating degrees of achievement in the various courses are given in letters, A, B, C, D, and F.

A-Excellent

B-Good

C-Fair

D-Poor

F-Failure

Inc.—Incomplete work

Wd.-Withdrawal from the class

Where a student has had an unavoidable absence, or for reasons approved by the instructor, a course may be marked "Incomplete" at the end of a semester. This mark must be removed by a final grade within six weeks, or the course cannot be credited and the mark becomes "F."

Degree and Certificate

After satisfactory completion of all requirements for graduation the degree of Bachelor of Arts is granted.

Those who complete requirements for a degree at the New Jersey State Teachers College at Montclair also qualify for a Standard Certificate to teach the subjects of the major and minor in grades 7-12 in the schools of New Jersey. The Montclair graduate is eligible for a Limited Secondary Certificate Those graduates who complete courses prescribed by the State Board of Education are also eligible for a Limited Elementary Certificate.

WEIGHTED SCORES

For purposes of striking averages and obtaining rankings, marks receive the following weighted scores for a semester-hour: A, +4; B, +3; C, +2; D, +1; F, -1.

Scholastic Honors

Students graduating with point averages of 3.45 or better for all undergraduate courses completed at Montclair are recognized as honor students with the following designations:

Average or 3.45—3.64—cum laude

Average of 3.65-3.84-magna cum laude

Average of 3.85-4.0 -summa cum laude

Requirements for Graduation and Bachelor of Arts Degree

A major requiring a minimum of thirty semester-hours.

A minor requiring a minimum of eighteen semester-hours.

Additional credits in required and elective work to total one hundred and thirty semester-hours.

Two semester-hours of work in physical education.

A minimum of two semesters of resident work.

A minimum of 150 clock-hours of student-teaching to satisfy the State requirement.

Scholastic Standards

In addition to the completion of such courses as may be prescribed, students must have an average weighted score per semester-hour of work taken in the College as follows:

a. Students admitted as freshmen	2.0
b. Students admitted as sophomores	2.13
c. Students admitted as juniors and seniors	2.25

PROFESSIONAL BACKGROUND COURSES

The professional objectives of these cultural courses have been discussed in this bulletin. The courses included in this division are required of all students and amount to nearly one-third of the total semester-hour requirement for graduation.

A cultural background should be a broad, well-unified body of knowledge. In accordance with the principle of integration, the greater part of the work in this department is organized into large units of instruction. For instance, Civilization and Citizenship is based upon present-day problems, and includes a carefully articulated study of the social, political, economic, industrial, religious, scientific, literary, and aesthetic phases of contemporary civilization. The problems of contemporary civilization are used as the fundamental motives for studying the history of civilization from the days of the Egyptians down to the present time. The study of the whole span of civilization is attempted for the purpose of showing how other ages have met with similar problems and how through the ages these problems have developed. This unit has been organized by the Departments of Social Studies, English, Science, Geography, and Integration, and is given by these various departments working together. Throughout this course departmental boundaries and barriers are broken down, in order that related subject-matter may become a unified body of knowledge. Such an effort to bring subject-matter into its natural relationship should be beneficial to prospective teachers who have need for broad understandings, clear meanings, and balanced judgments.

A second large unit of work centers about the literary and aesthetic needs and interests of civilization.

It should be noted that the courses in *Civilization and Citizenship* and *World Literature* parallel each other and are closely articulated and integrated.

The other smaller units of work such as Foundations of Language and Survey of Science do not follow a chronological order with the same degree of precision. However, the development in these fields parallels the larger units in social studies and English.

GROUP I. Social Studies

SOCIAL STUDIES 100A. Civilization and Citizenship

The major object of this course is to arouse in the student a vital awareness that all the varied fields of human knowledge which make up the college curriculum function in the social life—the civilization—of which we are all a part. A survey is made of great cultural epochs through which man has passed; the Egyptian, Greek, Roman, and Medieval. Their chief institutional problems—economic, political, family, religious, educational, aesthetic—are considered in the light of our own times. In this way a background is set up for the consideration of our modern world, and of the problems of today with which the course started.

Credit: 3 semester-hours

SOCIAL STUDIES 100B. Civilization and Citizenship

This course carries to completion the problems set up by the preceding course, but with the modern world as the main theme. A study is made of the transformation of a culture and of the changes brought about by the Renaissance, by the Protestant Reformation, by the Commercial Revolution, and, finally, by the Industrial Revolution and the emergence of the industrial society of our world today. It is intended that this course be a preparation for and provide a setting for the courses in contemporary problems given in the sophomore year.

Credit: 3 semester-hours

SOCIAL STUDIES 200A and 200B. Contemporary American Life

This two-semester course introduces the student to a broad area of social science, rather than to economics, political science, and sociology as such. An attempt is made to aquaint students with the basic premises of our democratic society, as well as the nature and structure of our social, economic, and political institutions. Emphasis is placed upon the changing character of our society and the relationships which exist between social, economic, and political problems. The course seeks to prepare students to cope with some of their individual problems and to equip them for active citizenship.

Types of social organization are considered, along with examples of social disorganization. The connection between governmental functions and social problems is explored. The distinctive characteristics of the American economy are studied, and economic groups and governmental economic policies are treated. Attention is focused upon democratic government as it functions in the United

States. This includes a study of public opinion, pressure groups, and political parties, as well as the framework of government. Throughout the course an effort is made to show the problems of contemporary American life in relationship to those of other nations.

In the presentation of this course, the usual classroom procedures are supplemented by the requirement that each student gain some knowledge through his own investigation and participation. Attendance at court sessions, municipal government meetings, and political rallies; observation of welfare and labor-management agencies in action; and consultation with representatives of business, government, labor, and social agencies are required of each student. A special effort is made to provide an opportunity for students to meet in seminars with representatives of the United Nations.

Credit: 3 semester-hours each

GROUP II. Literature, Language, Fine Arts, and Music

There are six units required in this group. These units are concerned (1) with furnishing materials of background and critical principles that insure a knowledge of the great masters of the literature of the world, appreciation of the literary forms which they created, and a feeling for the best in modern life and thought as expressed in literature, and (2) with developing the power of communiction in speech and writing.

ENGLISH 100A and 100B. World Literature: Its Forms and Its Masters

The purpose of these courses is to acquaint students with the great literature of the western world; Hebrew, Greek, Roman, Medieval, and Renaissance. This is done by supplementing the cultural-epochs approach of the Civilization and Citizenship, Music Appreciation, and Art Appreciation courses. As discussion permits, excursions are made into the literature of other cultures: Egyptian, Arabian, Indian, and Chinese. Parallels are constantly drawn between the past and the present in the literatures of Europe and America.

Credit: 3 semester-hours each

ENGLISH 200A. Composition

This course is designed to help the student improve his ability in writing so that he may understand and fulfill the requirements of the College in the organization and presentation of written materials. Exposition is stressed in order to provide practice in the fundamentals of effective organization. Outlining, handling of research and source materials, and general organization of term papers are introduced. An approved handbook of college level serves as a basis for the mechanics of the course.

Credit: 3 semester-hours

ENGLISH 200B. Fundamentals of Speech

This basic course is designed to help the prospective teacher to improve his ability in speaking. Effective voice production and clear, pleasing diction are developed through speech activities. The work of the course is adapted to the individual needs of the students as revealed by phonograph recordings and diagnostic tests. The work may include prescribed additional practice in the Speech Laboratory. Failure to achieve an acceptable standard of performance results in the withholding of credit until the student demonstrates satisfactory achievement.

Credit: 3 semester-hours

LANGUAGE 300. Foundations of Language

The purpose of this course is to give every student, as a prospective high school teacher, (1) a survey of the background, growth, and structure of the English language from its Indo-European origin to modern times, (2) an introduction to the science of linguistics, (3) an appreciation of several foreign language patterns, and (4) a rich fund of information in the field of general language.

Credit: 2 semester-hours

FINE ARTS 100. History and Appreciation of Art

The aim of this course is twofold: first, to study the art of each epoch as the expression of its typical beliefs and attitudes; and second, to enable the student to utilize his capacity for sensitive awareness and active response to visual experience in daily life as well as with formal media. In relating art and the spirit of each age, the work of the course is integrated with the study of historical epochs in the survey courses in World Literature and in Civilization and Citizenship. Laboratory exercises in creative art work are designed to give the student firsthand experience with the expressive means of the artist. Visits to the museums and galleries in the metropolitan area are part of the course work.

Credit: 1 semester-hour

MUSIC 100. Music Appreciation

This course helps the student to discover music for himself and to use it as a vital force in life enrichment. Emphasis is placed upon stimulating the enjoyment of music rather than building up a body of facts about it. By means of performance by the instructor and students, and directed listening to recorded music and to the radio, the student is acquainted with masterpieces of music which should be the possession of every cultured person. This course meets two hours weekly and is credited on a laboratory basis.

Credit: 1 semester-hour

GROUP III. Science

As his cultural background work in science, the student surveys the earth sciences (100C), either physical science (100A), or biology (100B), and hygiene and health.

SCIENCE 100A. Survey of Physical Science

This course deals with the basic scientific discoveries which have created present-day activities in the fields of astronomy, atomic energy, and meteorology. The social, economic, and educational consequences of these discoveries and the industries growing out of them are treated in such detail as to be of service to prospective teachers of social studies, English, languages, and other high school subjects.

Credit: 4 semester-hours

SCIENCE 100B. Survey of Biology

The organization and behavior of plants and animals are treated in a manner devised to develop understanding of man's structure and behavior. Mechanisms of heredity and evolutionary change are considered. An understanding of how a balance may be achieved among living things is developed to show desirable land use and good agricultural and forest practices. Class lectures and discussions are supplemented with lantern slides, moving pictures, laboratory experiments, and field trips.

Credit: 4 semester-hours

SCIENCE 100C. The Earth Sciences

Land forms and water bodies are treated from the standpoint of origin and evolution, and, together with the atmosphere, are considered in relation to their influence upon life and activities. The laboratory work consists of the study of topographic maps, models, and other methods of illustration. This course affords excellent background for all courses in geography.

Credit: 2 semester-hours

HEALTH EDUCATION 100. Healthful Living

The purpose of this course is to aid the student in achieving and maintaining optimum health and to understand the principles on which it is founded. Among the topics covered are: prevention and treatment of diseases, grooming, nutrition and weight control, the effects of alcohol and narcotics, marriage and parenthood, and the community aspects of health.

Credit: 2 semester-hours

PHYSICAL EDUCATION 100A and B. Physical Education Activities

The work of the freshman year consists of an orientation program whereby the students are provided with an opportunity to become acquainted with a variety

of team, dual, and individual sports. Special classes in remedial physical education, dancing, and swimming are also offered.

Credit: 1/2 semester-hour each

PHYSICAL EDUCATION 200 A and B. Physical Education Activities

The work of the sophomore year permits the student to select within a given pattern team, dual, and individual sports. Special classes in remedial physical education, dancing, and swimming are also offered.

Credit: 1/2 semester-hour each

GROUP IV. Mathematics

MATHEMATICS 300. The Social and Commercial Uses of Mathematics

This course presents an advanced treatment of the fundamental processes of arithmetic, approximate computation, percentage, simple and compound interest, consumer credit and installment buying, savings and investment, mortgages, taxation including the income tax, insurance, pensions and annuities, social security, cost of housing, and budgeting. Commercial, industrial, and consumer applications are stressed.

Credit: 2 semester-hours

MATHEMATICS 400. Educational Statistics

A comprehensive treatment of statistical problems fully considers standard methods of (1) the collection of raw data, (2) the systematic organization of such data, (3) the analysis of the data including the computation of measures of central tendency, of variability, and of correlation, (4) the interpretation of results including their limitations. Special attention is given to educational, economic, and social problems which require statistical analysis.

Credit: 2 semester-hours

THE DEPARTMENT OF PROFESSIONAL INTEGRATION

Since the function of the College is educational, it is hardly justifiable to single out one department as the Department of Education. There is needed, however, a group of workers who will integrate the work of the entire College by coordinating all the professional aspects of teaching such as subject-matter, teaching techniques, observation, and student-teaching. This responsibility for the integration of all the college interests is delegated to the Department of Professional Integration. The agencies in this department which carry out this work are: the courses in Integration, the College High School, the student-teaching program, and the placement and professional adjustment services. The work of these agencies transcends all departmental lines; the special interests and functions of any one department contribute to the professional aims of the institution which are broader in scope and purpose than those of any of the subdivisions of the College.

Since the only purpose of the College is professional, departmental aims are identical or similar. Hence the aims of the Department of Professional Integration are not exclusively its own. Its chief and particular function, however, is to assist and to give leadership in the following ways:

- (1) It helps the prospective teacher to take an intelligent and active part in his own personal and professional orientation.
- (2) It arouses an awareness of the possibilities of the profession of teaching as an opportunity to invest one's interests and powers in promoting the social good.
- (3) It gives an understanding of both elementary-school and high-school students, their natures, interests, and needs.
- (4) It provides for a gradual induction into the profession of teaching by means of a carefully arranged sequence of education courses, by observation of and participation in school classwork.
- (5) It directs the student as he becomes an active and responsible teacher in the student-teaching program.
- (6) It provides an analysis of the student-teaching experiences.
- (7) It aids in coordinating the work of the college departments through its integrating functions.
- (8) It provides training which will aid the student in taking an active part in the extra-curricular life of the school and in community life.
- (9) It gives a forward look into the profession so that it shall not be regarded as a stepping stone, but as a vocation worthy of a life work.

The department not only promotes the professional aspect through its materials and organization, but supplements the work of professionalization of all the departments.

Organization and Activities

The required courses in professional integration have been designed to give a survey of the essentials of the professional aspects of teaching. Five points of view are emphasized: the sociological, the biological, the psychological, the pedagogical or technical, and the philosophical. Although in a given semester course only one or two of these fields receive special emphasis, the content is not limited to them. There is rather the attempt throughout to conduct an integrated treatment of professional problems.

Special attention has been given to the sequence of the required courses and to the units within courses. In so far as it is administratively possible and expedient, courses in education parallel those in other departments. In this way the various departmental courses reinforce and supplement each other.

In the organization of all courses the needs of society and the needs and interests of the students are considered. Content material is taught, not as detached from the student's every-day world, but as part of his professional life in pre-service training. Both logical and psychological organizations are utilized, the former for completeness and unity, the latter for vitality.

The work in psychology includes some opportunity for firsthand observation of children and adolescents in their homes, on the playground and in other out-of-school settings, and in school. The aim is to acquaint the student, through any means available, with stages in normal development from infancy through

adolescence. An effort is made to build an understanding of what is involved in the psychological development of the individual and a basic understanding of the needs of children and adolescents together with some insight into the recources through which these needs may be satisfied. Special emphasis is given to the particular problems encountered in school situations.

Observation and participation in the College High School occupy a large place in the courses in educational integration. It is through personal contact with actual school conditions that students are led to understand the meaning of educational theory. Observation is begun in the freshman year and continued throughout the four years. In the early years this work is elementary in nature; but as the student advances, more complex aspects of the problems of teaching are observed and analyzed. In the end he comes in contact with all phases of teaching. In the junior year some of the departments follow a form of participation in which students assist the instructors of the College High School in the classroom. All juniors also spend one week full time in an elementary school, observing and participating in the teaching.

Immediately preceding the work in student-teaching offered in the senior year, a course in the principles and philosophy of secondary education is given. The major purpose of this course is to study with the student those basic and fundamental principles that should guide our secondary schools. Each student is encouraged to work out his own philosophy of life and of education.

Student-Teaching

The plan of student-teaching which the College carries out is based upon the principle of internship. At the beginning of the second semester the seniors leave the campus and take up the work of teaching in the schools of New Jersey. Each student is assigned to an experienced public-school teacher in a secondary school, under whose guidance he observes, participates, and teaches. Students whose major subject certification includes the elementary school are also assigned to an experienced elementary-school teacher for a comprehensive experience covering all grade levels.

The student spends the first week in observation and participation, then gradually takes over teaching responsibilities—one class, then two, then three. For the last weeks of the period in each school he has full responsibility for certain classes. Homeroom guidance, club work, student council meetings, and all the extra-classroom activities which round out the program of the modern public school are a part of his privileges and responsibilities.

The student returns from this experience with a new point of view and a new spirit. He has actual knowledge of the responsibilities of the teacher; his perspective is broadened; he has begun the development of his teaching skills; and he has a new insight into the psychology of the growing child.

The student-teaching period is followed by six weeks on the campus of intensive study of the practical problems of teaching. The practice in teaching provides a background for the interpretation of educational theory.

Supervision of Student-Teaching

During the twelve weeks of practice the student is frequently visited at work by members of the college faculty—representatives of the subject-matter departments and the Department of Integration. Individual and group conferences, and other approved supervisory techniques are employed in the improvement of teaching ability.

At the half-way point in the practice period the students return to the campus for a day's conference. General discussion, group meetings, and individual consultation with the staff members afford an opportunity for clearing up problems and difficulties which the students have encountered in the field.

Placement and Professional Adjustment Service

Since the Department of Professional Integration is responsible for the administration of the student-teaching program, its close contact with the various public schools of the State makes it the logical department to direct the work of placement of graduates. The Placement Bureau serves two purposes: helping the graduates of the College to secure positions suitable to their training and abilities; and, by so doing, cooperating with school authorities who are seeking to fill teaching and administrative positions. Because of its relationship with the Department of Professional Integration, the Bureau is able to provide definite and reliable information relative to the training, experience, and personal fitness of candidates. It arranges for personal interviews and for observation of candidates in teaching situations.

Credentials for every graduate of the College are compiled from class records, reports on student-teaching, and from information secured by consultation with heads of departments, the Registrar, faculty counselors, supervisors of student-teaching, members of the personnel division, and others who may be informed as to special aptitudes and activities.

In order to fulfill its obligations to both employers and prospective teachers, the Bureau requests complete information about vacancies to be filled. It assumes important responsibilities to the teacher, to the individual school, and to public education as a whole.

Courses numbered INTEGRATION 100, 200A, 200B, 300A, 300B, 400A, 400B, and 403, are required of all students; courses numbered otherwise are elective.

THE FIRST YEAR

The course in the first year of College is especially designed to help the student gain insights into his own personality and to develop resources within himself which should be of value when he becomes involved primarily in attempts to understand and to help others. It stresses the mental hygiene aspects of personality and develops some of the basic concepts which are necessary for the beginner in the field of psychology.

INTEGRATION 100. Mental Hygiene and Personal Adjustment

The course in mental hygiene and personal adjustment offers an accumulation of suggestions from psychological, biological, sociological, and educational literature which the college student may use in building his personality with the facilities available on the campus. Problems of human relationships and general orientation in college and in life are discussed.

Credit: 2 semester-hours

THE SECOND YEAR

Psychological Aspects of Education

INTEGRATION 200A. Child Growth and Development

This course covers the essentials of growth and development from the psychological and the educational points of view. It includes all aspects and stages of development from early infancy to adolescence. Stress is placed on firsthand observations of children in home, school, and play situations and elsewhere. Evaluation of materials gathered through such observations furnishes part of the material for discussion.

Credit: 2 semester hours

INTEGRATION 200B. Adolescent Psychology and Mental Hygiene.

This course stresses: (1) the development and growth of the normal adolescent; (2) problems which are related to normal development as they are met in school and elsewhere; (3) problems which occur because of deviations in any aspect of development—physical, mental, emotional, social, moral; (4) some techniques for understanding and dealing with this age group.

Credit: 2 semester hours

THE THIRD YEAR

Pedagogical and Technical Aspects of Education

The major purposes of the courses concerning the secondary school given in the junior year are: to acquaint the student with the factors that have influenced the evolution of the secondary school in America; to lead him to recognize its potentialities in developing a dynamic social order; and to help him to appreciate the part the teacher in this division of the school must have in realizing the ultimate goal of education. Basic issues common to contemporary life are examined to discover what the secondary school must do to meet the needs and requirements placed upon it.

In this division the practical phases of the secondary school are examined to give the student an understanding of its internal organization and of the specific part the teacher occupies in it. In the first semester the historical background of the development of secondary education in this country and European

countries is studied. This is followed by a study of the modern high school with particular reference to the town and city schools of New Jersey. The second course deals with the principles and techniques of teaching. Observation occupies a vital place in these courses.

INTEGRATION 300A. Aims and Organization of Secondary Education

The content of this course may be summarized in the following topics: (1) nature and function of the American secondary school; (2) historical development of secondary education in the United States; (3) organization of administrative units; (4) secondary education in other lands; (5) the students; (6) the program of studies and activities; (7) the staff; (8) buildings, grounds, and equipment; (9) cost and support of education; and (10) the secondary school as a social and economic instrument.

Credit: 2 semester-hours

INTEGRATION 300B. Principles and Techniques of Teaching in the Secondary School

The purpose of this course is to help each student: (1) to acquire a knowledge of general and specific techniques and the basic principles involved in their utilization; (2) to acquire initial skills in selecting and preparing materials and in manipulating tools and instruments which will be utilized in vitalizing instruction; (3) to study the problems and techniques of effective instructional planning. Activities include: reading and discussion of case studies and other professional literature dealing with current problems and practices, directed observation in the College High School, exploring courses of study, learning to operate and use various mechanical teaching aids, and preparing both a unit and a daily lesson plan.

Credit: 2 semester-hours

Third Year Elective Courses

INTEGRATION 302A. Television in Education Workshop, I

This is an experimental workshop course for students on the undergraduate level in which a study is made of the educational implications of television through the use of television studio equipment, utilizing the resources of all departments of the college, student potentialities, campus life, and the community. Actual training is given in the use of television equipment, planning, script writing, and programming in relation to classroom use on all grade levels in the schools. Trips are made to television laboratories and studios. Laboratory procedures are followed.

Credit: 2 semester-hours

INTEGRATION 302B. Television in Education Workshop, II

This is a continuation of Int. 302A, the experimental workshop course, and is designed for students on the undergraduate level who have had the basic

foundations of television techniques. The course is devoted to an intensive study of the educational implications of television through the evaluation of current commercial offerings and to the production of experimental educational programs in various subject matter areas. Laboratory procedures are followed, and students are expected to select an area for specialized work. Students are also given the opportunity to gain further experience in fundamental techniques by serving as assistants to the instructors in the basic course.

Credit: 2 semester-hours

THE FOURTH YEAR

Philosophical Aspects of Education

Students come to these courses with a background in their special fields of study, in psychology, and in techniques of teaching. The professional background courses have provided an opportunity to examine and appreciate the cultures of various civilizations. The purpose of the fourth-year courses is to unify these experiences and to help the students discover for themselves a working philosophy of life.

INTEGRATION 400A. Principles and Philosophy of Secondary Education

This course evaluates educational objectives, techniques, procedures, and organizations in relation to the needs of the student. It aims to help the student develop an adequate philosophy of life and of education.

Credit: 2 semester-hours

INTEGRATION 403. Supervised Student Teaching

Every student graduating from the New Jersey State Teachers College at Montclair completes twelve weeks of student teaching in the schools of New Jersey. At the beginning of the second semester the seniors leave the campus and take up this important assignment. Guidance is given by a good teacher in the cooperating school, and by supervisors from the College who come to observe the work. A more complete description is given on page 51 of this catalog.

Credit: 10 semester-hours

INTEGRATION 400B. Practicum in Secondary Education

This course follows student-teaching. It makes use of the teaching problems encountered by the students in the preceding twelve weeks, as well as similar problems reported by students in former years. In the manner of the clinic, cases are analyzed and diagnosed, and solutions are worked out. Examples of extraordinarily effective teaching procedures are similarly discussed.

Credit: 2 semester-hours

OTHER COURSES IN EDUCATIONAL INTEGRATION

General Aspects of Education

The following courses are elective. They cover various phases of education and supplement the work already described. Electives are offered in the junior, senior, and graduate years only.

INTEGRATION 406. Educational Sociology

This course deals with the application of sociological principles to educational problems. The school is treated as a part of the community, and the various social forces that affect the school and its administration are considered. The following topics are included: family backgrounds, community organization, social breakdown, socialized classroom methods, and the social approach to individual behavior difficulties.

Credit: 2 semester-hours

INTEGRATION 407A. Television in Education Workshop: Programming and Production

This is a laboratory course designed to develop the techniques, methods, standards, procedures, and criteria pertaining to the special place of television in education. Through the utilization of studio equipment together with the resources of all the academic departments of the college, student potentialities, campus life, and the community, students receive experience in planning, developing, and producing, television programs of educational value. Actual training is given in the use of standard television equipment on campus, and field trips are made to local television laboratories and studios.

Credit: 2 semester-hours

INTEGRATION 407B. Television in Education Workshop: Classroom Utilization

This course is designed to give training in the following areas of television education: types of programs best suited for classroom use; practical applications of programs emanating from commercial stations; various subject areas in which television might be used such as language, science, art, social studies, etc.; script writing; coordination of program and school schedules; and the possible use of educational television stations and how they can best serve surrounding communities. Students are also introduced to the operation of both sending and receiving television equipment so that they may understand program possibilities and limitations.

Credit: 2 semester-hours

INTEGRATION 408. Selection and Utilization of Audio-Visual Materials

Sources, selection, and evaluation of audio-visual aids are studied in this course. Techniques in developing individual reference catalogs of audio-visual aids are

stressed. The production of school-made aids is also an important aspect of the course. The use of the latest audio-visual equipment is demonstrated.

Credit: 2 semester-hours

INTEGRATION 409. Radio and Sound Equipment in the Classroom

This course trains teachers and school executives in the use of radio programs, amplifying systems, recording equipment, and record players. Actual practice is given in the use of these educational aids. Problems of script-writing, microphone and recording techniques, and program directing are considered. The class visits radio stations for equipment and program observation. Each student develops a teaching unit using radio or sound equipment to vary, vitalize, and improve educational practices.

Credit: 2 semester-hours

INTEGRATION 410. Teaching Materials Workshop

This course is for those persons who wish to study advanced problems in the utilization and administration of audio-visual materials. Individual research is stressed, and there is an opportunity to work out individual projects. Such problems as budget requirements, administrative set-up, establishment of film libraries, etc., are emphasized. It is assumed that the student will have taken Integration 408 or will have had the equivalent in practical experiences.

Credit: 2 semester-hours

INTEGRATION 411. Educational Motion-Picture Workshop

This course includes various phases of the planning and production of educational motion pictures. Students receive actual experience in scenario writing, costume research, set designing, lighting, photography, editing, and sound recording. During the course an educational film is produced as a class project.

Credit: 2 semester-hours

INTEGRATION 420A and 420B. The Community Centered School

This course deals with the development and functions of the school as a community resource. Students assemble and interpret data relating to actual school and neighborhood situations. Consideration is given to the social framework in which the school operates; racial and national minorities; intercultural munity resources. The use of school personnel and facilities to deal with racial education; truancy and delinquency; and the discovery and utilization of comproblems is treated in light of the data assembled.

Credit: 4 semester-hours

INTEGRATION 421A and 421B. Leadership of Activities and Services in Community Education

This course is designed to prepare teachers and others to give leadership to community-education activities. Starting with the assumption that the school

should serve as a community center, members of the course proceed to learn about the various activities and programs that can be initiated and carried on by the school. Consideration is given to programming, utilization of space and personnel, and care of equipment. Techniques for organizing and directing special programs such as scouting, folk dancing, crafts, field trips, production of films, forums and debates, etc., are included.

Credit: 4 semester-hours

INTEGRATION 422A and 422B. The Organization, Administration, and Supervision of Programs in Community Education

This is a workshop type of course which emphasizes the integration of school, social, recreational, and adult education programs. The course presents a survey of current trends in community education as adopted and implemented by boards of education throughout the country. Principles, policies, practices, and problems related to the administration and supervision of community-education programs are surveyed. The following types of programs are considered: summer playgrounds, day camps, after-school centers, evening centers, youth and adult recreation centers.

Credit: 4 semester-hours

INTEGRATION 430. Techniques for Improving Reading Abilities

This course deals with the diagnosis and remedial treatment of difficulties in reading. A study is made of the basic principles underlying desirable reading experiences and their application in guiding children to success in learning to read adequately.

Credit: 2 semester-hours

INTEGRATION 440. Camping and Outdoor Education

The purpose of this course is to familiarize the students with camping and outdoor education as educational methods utilized by the schools of America. The aims and methods of camping are studied, and consideration is given to the communities that have active camping and outdoor education programs in operation. The course also helps prepare the student for a position in summer camps. This course is usually given at the New Jersey State School of Conservation, Stokes State Forest.

Credit: 2 semester-hours

INTEGRATION 441. Conservation Education

This course is designed to give teachers and prospective teachers a background for organizing and teaching conservation on various grade levels. The need for conservation, the various kinds of natural resources, and some of the modern methods for using and renewing these resources are considered. Field trips, laboratory experiences, visual aids, printed materials, and visiting specialists combine to make this a useful introductory course for all teachers.

Credit: 2 semester hours

INTEGRATION 442. Practicum in Camp Leadership

In this course the student has an opportunity to learn the techniques of camp leadership through practical experience, guided group study, and discussion. The practical experience comes through serving as a camp counselor in an actual camp situation. During this practical experience there are regular discussion sessions and assigned readings which help the student to gain a background of knowledge to help deal with the practical problems as they arise.

Credit: 2 semester-hours

INTEGRATION 444. Practicum in Conservation Education

This course is designed to provide teachers and supervisors with a background of experience and knowledge which will enable them to organize and to conduct conservation education programs in their own communities. Using an extensive library of conservation educational material, students formulate teaching units, lists of teaching aids, and projects suitable for use in their own communities. Participation in conservation projects with the children in the demonstration camp furnishes a practical background for research and discussion.

Prerequisite: INTEGRATION 441, Conservation Education, or Science 412, Field Studies in Science: Biological, or Science 413, Field Studies in Science: Physical, or the equivalent

Credit: 2 semester-hours

INTEGRATION 450. Psychological Foundations of Personality

This course is concerned with the physical, mental, and cultural bases underlying the formation of the personality of the individual. Emphasis is placed upon the implications for the teacher in developing understanding of the formation and measurement of personality.

Credit: 2 semester-hours

INTEGRATION E460. Public School Program of Studies

This title is given to a group of courses designed to meet requests from public school systems desiring help in curriculum reconstruction. Each of the parts of this general course is given on a cooperative intercollege basis, and taught by specialists in the various fields selected from the faculties of the cooperating State Teachers Colleges. Certificates of credit are issued by the college sponsoring the work.

Part I. 460A—Principles of Curriculum Revision

Part II. 460B-Workshop in Curriculum Revision

Part III. 460C—Organization and Evaluation of Curricula

Part IV. 460D—The Social Studies Program of Studies

Part V. 460E—The Language Arts Program of Studies

Part VI. 460F—The Science Program of Studies

Part VII. 460G—Workshop in Materials and Methods of Science Education

Part VIII. 460H—The Mathematics Program of Studies

These cooperative intercollege courses are provided only when the requests from the public school authorities of the county, municipality, or community are such as to require their use. No undergraduate may elect these courses unless he is actively engaged in teaching.

Credit for each part: 2 semester-hours

INTEGRATION E460I. Public School Program of Studies

Part IX. Testing and Evaluation in Instructional Program

This course is a part of a group of courses designed to meet requests from public school systems desiring help in curriculum reconstruction and in up-grading of teacher personnel. The course is given as a workshop dealing with testing, test construction, evaluation of students, and evaluation of test results on teacher-prepared tests. Practical classroom tests and actual teaching situations are considered.

Credit: 2 semester-hours

INTEGRATION 461. The Junior High School Curriculum

Recent trends in the development of the junior high school curriculum and the relation of the curriculum to the aims, function, and organization of the junior high school are the topics covered in this course. Curriculum patterns in representative junior high schools are studied and evaluated. An opportunity is given to each student to develop units of work for junior high school subjects in the major of his choice.

Credit: 2 semester-hours

ELEMENTARY EDUCATION COURSES

Although the New Jersey State Teachers College at Montclair is engaged primarily in preparing secondary-school teachers, during the present shortage of teachers in the elementary schools it is deemed expedient to offer courses in the field of elementary education for the undergraduates of the college leading toward certification to teach in these schools.

INTEGRATION 472. Elementary School Curriculum

This course acquaints the College student with the subject-matter of the elementary school curriculum for grades 3-6 inclusive. In addition, the following are studied: (1) correlation among subjects, (2) the appraisal and use of textbooks, (3) the use of visual aids, (4) the methods adapted to each subject, and (5) use of course of study materials.

Credit: 2 semester-hours

INTEGRATION 473. Elementary School Language Arts.

This course gives an overview of modern practices that are used in teaching reading, creative writing, speaking, spelling, and handwriting in the elementary grades. Students are helped to recognize and to make provision for readiness for learning in these areas, to learn or devise various techniques that will meet the needs of different children and situations, and to evaluate, select, and create suitable materials to be used at various maturity levels. Special emphasis is placed on the functional use of the language arts in the total curriculum and life of the elementary-school child.

Credit: 2 semester-hours

INTEGRATION 474. Elementary School Arts and Crafts

This course provides a wide range of creative manipulative experience with the materials, tools, and techniques of art work in the elementary school and an insight into significant art work of children of various age levels. Work is done in crayon, paint, chalk, clay, wood, papier-mache, finger paints, and other easily accessible materials. The work of the course includes simple weaving, block prints, murals, and the making of puppets. Attention throughout is directed toward an insight into the significance of art work and of manipulative experience as a medium of expression and a means of growth for the child.

Credit: 2 semester-hours

INTEGRATION 475A. Fundamentals of Elementary School Music

The elements of music, including notation, the formation of scales and various modes, key and clef signatures, Italian musical terms, abbreviations, rhythm, and intervals are included in this course. The student should acquire the ability to write a simple melody from dictation and to read at sight any part in a simple three-part selection in a musician-like manner. Ability to carry a tune is necessary for success in this course.

Credit: 2 semester-hours

INTEGRATION 475 B. Teaching Elementary School Music

This course is designed for students who are either music majors or music minors or who have an acceptable background in music. It deals primarily with the materials needed in elementary school music and applies the skills of persons who know music in the teaching of these materials. Students who are not accomplished in the musical field should enroll for Integration 475 A as a pre-requisite for this course.

Credit: 2 semester-hours

INTEGRATION 476. Elementary School Health and Physical Education

The purpose of this course is to induct the prospective elementary classroom teacher into the field of health and physical education. Such phases as state

courses of study, selection and organization of materials, grading, class organization, and others are discussed. To give the student a more functional approach, the programs of surrounding communities are studied.

Credit: 2 semester-hours

INTEGRATION 477. Elementary School Mathematics

This course includes a study of the development of the number concept in young children, the problem of number readiness, and an analysis of the various number skills. Consideration is given to the development of methods of presenting the units of elementary mathematics to children. Emphasis is placed on the meaningful use of the fundamental operations with integers, fractions, decimals, and problem solving. Experience is given to students in effective methods of lesson planning, testing, and diagnostic and remedial work.

Credit: 2 semester-hours

INTEGRATION 478. Elementary School Science

This course is based upon the assumption that science teaching in the elementary school should include scientific inquiry at the child's level as well as scientific information. Specific methods and materials are developed to meet these purposes. Emphasis is placed upon using the school community, learning through activity, and integrating science with other subject-matter areas.

Credit: 2 semester-hours

INTEGRATION 479. Elementary School Social Studies

This course is designed to familiarize the student with the materials and methods for teaching man's relation to his environment and other human beings in the elementary grades. The integration of the various phases of social living, with other subjects, grade placement of subject-matter, the source and use of visual aids, and student projects are all stressed.

Credit: 2 semester-hours

INTEGRATION 480. Field Science for Elementary Teachers

Working in a natural setting, rather than an artificial laboratory, this course stresses firsthand experience with natural phenomena and suggests what can be done to convey an understanding of these things to the elementary-school student. In developing an understanding of natural resources consideration is given to such areas as rocks and minerals, plant and animal life, astronomy, weather, and all outdoor phenomena, both physical and biological. If desired, collections are made under supervision, and some latitude is provided for individual specialization in some phase of field science. The student needs no formal scientific background for this course. Methods of teaching on the elementary-school level as well as subject-matter content are included. Simple demonstrations, experi-

ments, collections, acquisition of free and inexpensive materials, reference publications, and the most recent methods and trends in field-trip procedure are considered.

Credit: 2 semester-hours

PROFESSIONAL SUBJECT-MATTER COURSES

Fields of Specialization

Professional subject-matter courses offer opportunities for students to major in the Departments of Business Education, English, Fine Arts, Home Economics, Industrial Arts, Languages, Mathematics, Music, Science, Social Studies, and Speech, and to minor in the fields of Accounting and Business Practice, Biological Science, Physical Science, English, Geography, History, Languages, Mathematics, Music, Physical Education, Political Science and Economics, Secretarial Studies, Social Business Studies, and Speech. The minimum requirement for a major is thirty semester-hours. The minimum requirement for a minor is eighteen semester-hours. Electives may be used outside the major and minor fields of interest, thereby increasing the areas of certification.

THE DEPARTMENT OF BUSINESS EDUCATION

The New Jersey State Teachers College at Montclair is now the only state teachers college in the northern section of New Jersey that trains business-education teachers. As the result of a recent curriculum reorganization the Business Education Department now prepares teachers who are qualified to teach all of the business-education subjects usually offered in most high schools.

Every business-education major is certified to teach typewriting and the general business-education subjects. In addition, every major selects one of the following two areas of specialization: (1) accounting, (2) secretarial studies.

Every business-education major also has the opportunity to select a second minor field. In this way a business-education major specializing in accounting automatically has one minor in typewriting and general business-education subjects. He can also take a second minor in any other department of the College or in secretarial studies. A business-education major specializing in secretarial studies also takes a minor in typewriting and general business-education subjects. He can also take a second minor in any other department of the College or in accounting.

Students majoring in other departments of the College can minor in: (1) secretarial studies, (2) social business studies, (3) accounting.

All of the work in the Business Education Department is open to students who have never studied business-education subjects in high school. Students who can type with a reasonable degree of speed and accuracy may be exempt from the first typewriting course upon the successful completion of a placement examination given during the first week of classes.

The following course requirements constitute the Business Education Major with specialization in Secretarial Studies:

Business Education Major

Secretarial and Business Practice Specialization

Social Business Studies Minor Second Minor in Accounting or Other Departments

FRESHMAN YEAR

Semester I	10111111	Semester II	
Eng. 100A World Literature, I	3	Eng. 100B World Literature, II	3
S.S. 100A Civilization & Citizenship,)	S.S. 100B Civilization & Citizenship,	Ð
I	3	II	3
Fine Arts 100 Art Appreciation	1	Mus. 100 Music Appreciation	
Int. 100 Mental Hygiene & Pers. Adj.	2	Sci. 100C Earth Sciences	
Sci. 100A Survey of Physical Science.	4	H.Ed. 100 Healthful Living	
or Sci. 100B Survey of Biology		Phys. Ed. Activities	1/2
Phys. Ed. Activities	1/2	Bus. Ed. 102 Business	
Bus Ed. 101 Bus. Org. & MgT	3	MATHEMATICS	3
Bus. Ed. 103 Typewriting (4 periods)	0*	Bus. Ed. 104 Typewriting	2
(4 periods)	0	(4 periods)	2
	161/2		161/2
SOF	РНОМО	RE YEAR	
Eng. 200A Composition	3	Eng. 200B Fundamentals of Speech	3
Int. 200A Child Growth & Develop-		Int. 200B Adoles. Psych. & Mental	,
ment	2	Hygiene	2
S.S. 200A Contemporary American		S.S. 200B Contemporary American	
Life, I	3	Life, II	3
Phys. Ed. Activities	1/2	Phys. Ed. Activities	$\frac{1}{2}$
Bus. Ed. 203 Typewriting, III	11/	Bus. Ed. 204 Typewriting, IV	11/
(3 periods)	11/2	(3 periods)	$\frac{1}{4}$ /2
Bus. Ed. 205 Stenography, I	4	Bus. Ed. 206 Stenography, II	4
BUS. ED. 201 ACCOUNTING, I or other minor	3	Bus. Ed. 202 Accounting, II or other minor	3
of other inition		or other minor	
	17		17
J	UNIOR	YEAR	
Int. 300A Aims & Org. of Sec. Ed	2	Int. 300B Prin. & Tech. of Tchg. in	
Lang. 300 Foundations of Language	2	Sec. Sch.	2 3
Bus. Ed. 305 Business Law, I	3	Bus. Ed. 409 Consumer Education	3
Bus. Ed. 208 Salesmanship	3	Bus. Ed. 306 Business Law, II	3
Bus. Ed. 303 Steno. & Transcrip-	2	Bus. Ed. 308 Economic Geography	3
TION I	3	BUS. ED. 304 STENO. & TRAN- SCRIPTION, II	3
Bus. Ed. 301 Accounting, III or other minor	3	Bus. Ed. 302 Accounting, IV	3
or other minor		or other minor	3
	16		
			17
S	ENIOR	YEAR	
Int. 400A Prin. & Philos. of Ed	2	Int. 403 Student Teaching	10
Math. 400 Educational Statistics	2	Int. 400B Practicum in Sec. Ed	2
Bus. Ed. 401A Meth. of Tch. Type.		Bus. Ed. 407 Office Practice—	
& GEN. BUS.	3	SECRETARIAL	3
BUS. ED. 401C METH. OF TCHG. SECRE. STUDIES	2		15
Bus. Ed. 405 Office Practice—	2		1)
CLERICAL	3		
Elective	2		

^{*}Exemption may be obtained by examination.

BUS. ED. 401B METH. OF TCHG. **BOOKKEEPING & ACCOUNTING** 16

The following course requirements constitute the Business Education Major with specialization in Accounting:

BUSINESS EDUCATION MAJOR

Accounting and Business Practice Specialization

Social Business Studies Minor Second Minor in Other Departments or Secretarial Studies

FRESHMAN YEAR

Semester I		Semester II	
Eng. 100A World Literature, I	3	Eng. 100B World Literature, II	3
S.S. 100A Civilization & Citizenship,		S.S. 100B Civilization & Citizenship,	
I	3	II	3
Fine Arts 100 Art Appreciation	1	Mus. 100 Music Appreciation	1
Int. 100 Mental Hygiene & Pers. Adj.	2	Sci. 100C Earth Sciences	2
Sci. 100A Survey of Physical Science		H.Ed. 100 Healthful Living	2
or Sci. 100B Survey of Biology		Phys. Ed. Activities	1/2
Phys. Ed. Activities	1/2	Bus. Ed. 102 Business Mathe-	
Bus. Ed. 101 Bus. Org. & Mgt	3	MATICS	3
BUS. ED. 103 TYPEWRITING	0.*	BUS. ED. 104 TYPEWRITING	
(4 periods)	0*	(4 periods)	2
	1614		161/
	161/2		161/2
SOI	PHOMO	RE YEAR	
Eng. 200A Composition	3	Eng. 200B Fundamentals of Speech	3
Int. 200A Child Growth & Develop-		Int. 200B Adoles. Psych. & Mental	,
ment	2	Hygiene	2
S.S. 200A Contemporary American		S.S. 200B Contemporary American	
Life, I	3	Life, II	3
Phys. Ed. Activities	1/2	Phys. Ed. Activities	1/2
Bus. Ed. 201 Accounting, I	3	Bus. Ed. 202 Accounting, II	3
Bus. Ed. 203 Typewriting, III		Bus. Ed. 204 Typewriting, IV	
(3 periods)	$1\frac{1}{2}$	(3 periods)	$1\frac{1}{2}$
Bus. Ed. 205 Stenography, I	,	Bus. Ed. 206 Stenography, II	
or other minor	4	or other minor	4
	17		1.7
	17		17
j	UNIOR	YEAR	
Int. 300A Aims & Org. of Sec. Ed	2	Int. 300B Prin. & Tech. of Tchg. in	
Lang. 300 Foundations of Language	2	Sec. Sch.	2
Bus. Ed. 301 Accounting, III		Bus. Ed. 408 Business Finance	2
Bus. Ed. 305 Business Law, I	3	Bus. Ed. 302 Accounting, IV	3
Bus. Ed. 208 Salesmanship	3	Bus. Ed. 306 Business Law, II	3
Bus. Ed. 303 Steno. & Tran-		Bus. Ed. 308 Economic Geography	3
SCRIPTION, I or other minor	3	Bus. Ed. 409 Consumer Education	3
			_
	16	***************************************	16
		**Bus. Ed. 304 Steno. & Tran-	2
		SCRIPTION, II or other minor	3

^{*}Exemption may be obtained by examination.
*Recommended if possible.

Semester I

SENIOR Int. 400A Prin. & Philos. of Ed. 2 Math. 400 Educational Statistics 2 Bus. ED. 401A METH. OF TCHG. TYPE. & GEN. BUS. 3 Bus. ED. 401B METH. OF TCHG. BOOKKEEPING & ACCOUNTING 2 BUS. ED. 405 OFFICE PRACTICE— CLERICAL 3 BUS. ED. 410 ADVANCED ACCOUNTING 2 BUS. ED. 401C METH. OF TCHG. SECRE. STUDIES or other minor 2 16	YEAR Int. 403 Student Teaching
Minors in the Departmen	nt of Business Education
The following courses are required in fields: Secretarial Studies Minor Seque Other Than Bus	
SOPHOMO	DRE YEAR
Semester I Bus. Ed. 103 Typewriting (4 periods) 0 Bus. Ed. 205 Stenography I	Semester II Bus. Ed. 104 Typewriting (4 periods) 2 Bus. Ed. 206 Stenography II
JUNIOF Bus. Ed. 203 Typewriting, III	
SENIOR	RYEAR
Bus. Ed. 401C Methods of Tchg. Sec. Studies	
Social Business Minor Sequen	ace for Majors in Departments siness Education
SOPHOMO	ORE YEAR
Semester I	Semester II
Bus. Ed. 101 Bus. Org. & Mgt	Bus. Ed. 409 Consumer Education 3 R YEAR
Bus. Ed. 305 Business Law, I 3 Bus. Ed. 208 Salesmanship 3	Bus. Ed. 308 Economic Geography 3
	R YEAR
Bus. Ed. 401A Methods of Teaching Typing & General Business	
	e for Majors in Departments siness Education

SOPHOMORE YEAR

Semester II

All students majoring in the Business Education Department must complete ten weeks (400 hours) of practical business experience for certification. Specific directions are given by the Chairman of the Department.

All business-education majors also must observe business-education classes in various high schools. The details of this program are supplied by the Chairman of the Department.

All students majoring in the Business Education Department are required and all students minoring in the Department are invited to participate in the extra-curricular programs planned by the Department. Epsilon Mu Epsilon is the departmental club with membership open to all majors and minors. Students are given opportunities for leadership and social activities. Outstanding students receive invitations to become members in the Beta Sigma Chapter of Pi Omega Pi, the National Honorary Business Education Society.

FRESHMAN YEAR

BUSINESS EDUCATION 101. Business Organization and Management

This course is an introduction to the world of business. It goes into the functions of business, bank services, credit, investments, insurance, forms of business organization, personnel problems, transportation and communication.

Credit: 3 semester-hours

BUSINESS EDUCATION 102. Business Mathematics

This course is designed to provide a thorough mastery of numbers in preparation for the teaching of business arithmetic and bookkeeping in junior and senior high school. The fundamental processes are related to discounts, markups, turnover, depreciation, pay rolls, interest, sales, invoices, stocks and bonds.

Credit: 3 semester-hours

BUSINESS EDUCATION 103. Typewriting, I

This is a course for freshman students who have had no previous typewriting instruction, or for those who have had typewriting in high school but who have failed to meet the placement examination standards. The keyboard is mastered by word-building and sentence-building techniques. Speed in typing these words and sentences is emphasized from the start, and accuracy is developed simultaneously by individual analysis of errors. At the end of the semester, the student has a basic facility in typing from straight copy, in setting up paragraph material in medium-length letters accurately on a business letterhead, and in typing term

papers. With this training, the student should be able to use the typewriter for personal typing problems. This course meets for four periods per week.

No credit, first semester

BUSINESS EDUCATION 104. Typewriting, II

The aim of this course is to increase the typing speed and ability of the student by stressing the need for accuracy in all material typed. Emphasis is placed upon expert proof reading before releasing any papers for approval by the instructor. Advanced letter forms, such as the block, full block, five-indent, and all variations of the modified block, are applied at frequent intervals to insure thorough recall. This course meets for four periods per week.

Credit: 2 semester-hours

SOPHOMORE YEAR

BUSINESS EDUCATION 201. Accounting, I

This is a basic course in accounting. It is designed for the student who has never studied bookkeeping. Emphasis is placed on developing a thorough understanding and mastery of the fundamental elements of bookkeeping and accounting. After analyzing the elementary accounting equations, the student learns to journalize, post, take a trial balance, and prepare financial statements, as applied to the sole proprietorship form of organization. Adequate training is provided through the use of numerous exercises and constant emphasis on developing an understanding of sound accounting theory and practice.

Credit: 3 semester-hours

BUSINESS EDUCATION 202. Accounting, II

This course starts with a thorough review of the accounting cycle. The student learns to use special journals, controlling accounts, work sheets, classified statements, reserves, accruals, deferred items, reversals, special columns, and business papers. Special attention is given to the use of the voucher system, pay-roll accounting, and accounting for taxes. Thorough analysis is made of partnership formation and operation, as well as partnership reorganization and dissolution.

Prerequisite: Business Education 201

Credit: 3 semester-hours

BUSINESS EDUCATION 203. Typewriting, III

Mastery of the keyboard and remedial treatment of any deficiencies in basic typewriting skills are emphasized in this course. Additional speed and accuracy are developed. Much time is spent on office typewriting skills including handling multiple carbons, preparing invoices, and other business forms. This course meets for three periods per week.

Credit: 1½ semester-hours

BUSINESS EDUCATION 204. Typewriting, IV

This course is a continuation of Business Education 203. This course meets for three periods per week.

Credit: 1½ semester-hours

BUSINESS EDUCATION 205. Stenography, I

The theory of Gregg stenography (Simplified) is taught in this beginning course. The student learns to read shorthand fluently and to take dictation on familiar material.

Credit: 4 semester-hours

BUSINESS EDUCATION 206. Stenography, II

Gregg shorthand theory (Simplified) is thoroughly reviewed, and unfamiliar dictation is given at moderate speeds. At the same time vocabulary building is emphasized.

Prerequisite: BUSINESS EDUCATION 205 or college equivalent

Credit: 4 semester-hours

BUSINESS EDUCATION 208. Salesmanship

The principles of salesmanship in all types of selling activities are discussed. They are amplified and strengthened by individual selling demonstrations which require intensive study of the product to be sold in the demonstration and careful analysis of the desirable techniques for its sale. Visual aids and talks by salesmen, sales managers, and retail training directors add interest and purposefulness to the course.

Credit: 3 semester-hours

JUNIOR YEAR

BUSINESS EDUCATION 301. Accounting, III

In this advanced course there is emphasis on all phases of corporate accounting, including: the formation of corporations; corporate accounts and records; corporate surplus and dividends; and corporate stocks and bonds. Departmental and branch accounting are carefully presented through exercises and laboratory problems.

Prerequisites: BUSINESS EDUCATION 201 and BUSINESS EDUCATION 202

Credit: 3 semester-hours

BUSINESS EDUCATION 302. Accounting, IV

Manufacturing and cost accounting procedures are presented with complete analysis for the advanced student of accounting. Both the accounting for manufacturing operations as well as procedures in the preparation of the periodic summary for a manufacturing enterprise are considered. Job order and process cost

accounting are studied in detail as well as the problems of budgets, and the analysis and interpretation of financial statements.

Prerequisites: Business Education 201, Business Education 202, Business Education 301

Credit: 3 semester-hours

BUSINESS EDUCATION 303. Stenography and Transcription, I

The emphasis in this course is upon the transcription of shorthand notes into typed copy. Considerable attention is paid to sentence structure, correct grammar, spelling, and the development of good typewriting techniques. The dictation speed for new material increases as the course progresses.

Prerequisites: BUSINESS EDUCATION 205, BUSINESS EDUCATION 206, or college equivalent

Credit: 3 semester-hours

BUSINESS EDUCATION 304. Stenography and Transcription, II

Both transcription and stenographic skills are improved in this course. Shorthand theory is thoroughly reviewed and tested. Office-style dictation supplants some of the conventionally timed dictation.

Prerequisites: Business Education 205, Business Education 206, and Business Education 303

Credit: 3 semester-hours

BUSINESS EDUCATION 305. Business Law, I

The purpose of this course is to acquaint the student with the laws relating to everyday business transactions. It includes such topics as: court systems, contracts, agency, employer-employee relationships, negotiable instruments, bailor and bailee, carriers, and shippers.

Credit: 3 semester-hours

BUSINESS EDUCATION 306. Business Law, II

This course is a continuation of BUSINESS EDUCATION 305. It covers sales, partnerships, property, deeds, mortgages, landlord and tenant, and torts.

Credit: 3 semester-hours

BUSINESS EDUCATION 308. Economic Geography

This course includes a study of the natural geographic areas of the world and the trade routes between these areas. Emphasis is given to the influence that natural environment has upon production, trade, and the utilization of important agricultural, forestry, mineral, and manufactured commodities.

Credit: 3 semester-hours

SENIOR YEAR

BUSINESS EDUCATION 401A. Methods of Teaching Typing and General Business

Consideration is given to the methodology of teaching elementary and advanced typing and the basic business subjects, including general business, business law, and consumer education. Content, lesson planning, visual aids, and evaluation procedures are considered for each subject. A test of subject-matter competency in each field is required.

Credit: 3 semester-hours

BUSINESS EDUCATION 401B. Methods of Teaching Bookkeeping and Accounting

A brief study is made of the history and development of bookkeeping instruction and materials, and aims and objectives in the light of current trends. Special attention is given to the problems of textbook selection, lesson planning, classroom and teaching procedures, tests and measurements, audio-visual and other teaching aids. Opportunities are given students to present lessons for criticism and evaluation. A test of subject-matter competency is required.

Prerequisite: 12 semester-hours of accounting

Credit: 2 semester-hours

BUSINESS EDUCATION 401C. Methods of Teaching Secretarial Studies

Techniques of teaching beginning stenography, advanced dictation and transcription, secretarial training, and clerical practice are provided in this course. Attention is given to the latest teaching materials, audio-visual aids, equipment, and supplies.

Teaching the skills of the clerical and secretarial worker is stressed; in addition, the traits, attitudes, work habits, and understandings which, if developed, permit an office worker to make a real contribution to the business world and to society are analyzed. The unique opportunities present in the preparation of the secretarial worker for service to the school and to the community are surveyed. A test of subject-matter competency in each field is required.

Credit: 2 semester-hours

BUSINESS EDUCATION 404. Business Economics

This course deals with the business aspects of economics as related to immediate and long-range post-war problems; operation and government control of public utilities; taxation, government finance, and labor and management problems.

Credit: 2 semester-hours

BUSINESS EDUCATION 405. Office Practice—Clerical

Office machines commonly used by the bookkeeper and clerical worker are studied in this course. Actual training is given on the 10-key and full keyboard

adding listing machines, the rotary and key-driven calculating machines, and the posting machine. Other office skills necessary for the clerical worker to possess are stressed. Limited instruction is provided on the voice-writing and duplicating equipment.

Techniques of job analysis, including job description, job breakdown, and job evaluation are practiced.

Credit: 2 semester-hours

BUSINESS EDUCATION 406. Advertising, I

This course aims to acquaint the student with the social and economic aspects of advertising so that a fair evaluation may be made of its worth as well as its undesirable aspects. Copy appeals, the writing of copy, advertising layouts, and the selection of appropriate types of media for various advertisements are considered. Emphasis is placed on the research aspects of the subject so important today.

Credit: 2 semester-hours

BUSINESS EDUCATION 407. Office Practice—Secretarial

The secretary must be acquainted with office procedure and must be able to operate many different office machines. This course familiarizes the prospective teacher of secretaries with the operation of voice-writing and duplicating equipment. The duties of the secretarial worker are studied, with considerable attention being paid to filing. Understanding of office procedures and stenographic skill are strengthened through supervised office assignments and class work projects.

Credit: 2 semester-hours

BUSINESS EDUCATION 408. Business Finance

This course deals with the processes involved in the financing of business organizations from the time of their inception and promotion, during operation and expansion, and during the period of reorganization. Problems involving financing by means of stock, borrowed capital, mortgages, bonds, and notes are solved.

Credit: 2 semester-hours

BUSINESS EDUCATION 409. Consumer Education

Consideration is given to the role of the consumer in the economy, some of the forces affecting consumer demand, governmental and private agencies aiding the consumer, and the development of intelligent techniques for buying and using consumer goods and services.

Credit: 3 semester-hours

BUSINESS EDUCATION 410. Advanced Accounting

This is an advanced course for students who have had two years of accounting. Emphasis is placed on techniques of problem solving. Included are problems re-

lating to basic accounting principles, cost accounting, and intermediate accounting. Considered are the determination of net income on accrual, cash and installment bases; problems of valuation, including problems of depreciation, depletion, and amortization; consignments; preparation and analysis of financial statements, including analysis of net change in gross profit and net change in working capital; partnership formation, operation, dissolution, and liquidation; bankruptcy, reorganization, and recapitalization, and consolidated balance sheets and income statements.

Prerequisites: Business Education 201, Business Education 202, Business Education 301, and Business Education 302

Credit: 2 semester-hours

BUSINESS EDUCATION 411. Tax Accounting

The purpose of this course is to give a comprehensive picture of the Federal Tax structure. Extensive training is provided in the application of basic principles to the specific problems of the individual. All forms involved in the filing of individual tax returns are carefully studied. Opportunity is provided for the student to master the problems encountered in completing individual tax returns.

Prerequisite: 12 semester-hours of accounting

Credit: 2 semester-hours

BUSINESS EDUCATION 412. Project Development in Consumer Education

This course permits the student to explore in a specialized fashion two major areas of consumer education. Two projects are developed, one on housing and the other on the furnishing of a home. The basic purposes of this course are to illustrate the handling of material and the procedures that might be used in developing other consumer education units.

Prerequisite: An undergraduate course in consumer education or economics.

Credit: 2 semester-hours

BUSINESS EDUCATION 414. Merchandising, I

This course analyzes the problems of how, what, where, and when to buy; the terms of purchasing; tested receiving and marketing procedures; the mathematics of merchandising—setting the retail price, planning mark-up and mark-down; and inventory controls. It is designed to assist the teacher of the prospective or actual small businessman.

Credit: 2 semester-hours

BUSINESS EDUCATION 417. Marketing

Marketing is the process of transferring goods from the producer to the consumer. The functions involved in the process, the various channels of distribution, marketing institutions, and the costs of marketing are considered in this course.

Such topics as auctions, produce exchanges, wholesalers, retailing, department and mail-order stores, chain stores, cooperatives, profits and prices are included.

Credit: 2 semester-hours

BUSINESS EDUCATION 418. Retail Store Management

The work of the store manager in retail store operation is fully explored in this course. The problems of organization and management as they are encountered in various types of retail stores are discussed. Consideration is given to trends, principles, and practices in small and large stores in both the independent and chain-store fields.

Credit: 2 semester-hours

BUSINESS EDUCATION 420. Field Studies in Business Education

This orientation course aims to introduce business-education students, through direct observational techniques, to the realities of the business world. Six field trips are made in the New York Metropolitan Area which include visits to business organizations where the following types of business activity or relationships may be observed: production; merchandising and advertising; finance; transportation and communication; employer-employee relationships; government and business relationships. The field trips are supplemented by regular class sessions where discussions are held and visual aids presented to make the visits more meaningful.

Credit: 2 semester-hours

BUSINESS EDUCATION 421. Finance and Investments for Families

This course applies the principles of budgeting, banking, insurance, finance, and investments to the complicated problems facing individuals and families in these areas. It deals with budgets; savings; banking; life insurance; general insurance annuities; pensions; wills; such investments as stocks, bonds, and mutual funds; homes; and small business enterprises.

Credit: 2 semester-hours

THE DEPARTMENT OF ENGLISH

The English Department serves the entire college by offering certain courses in composition, speech, and literature which are required of all students. It offers other courses which may be taken as electives by students who are preparing to teach in any field, and a four-year program for those students who choose the subject as a major field of specialization.

The four-year program offers a rich background of knowledge and literary experience to the student who wishes to teach English in the high school. Courses in speech and composition develop the student's ability to express himself orally and in writing. Other courses are designed to give the student understanding of the way human beings use language to express and communicate their ideas and

experiences, of the types and forms of literature, of the major developments in the literary history of the Western world, of the many masterpieces of British and American literature, of the subtle and intimate relationship between literature and human culture, and of the ways by which expression and reading may develop and enrich the lives of high-school students.

Training for leadership in extra-curricular programs of the secondary school is provided in the activities of organizations sponsored by the Department. The ENGLISH CLUB welcomes to membership all English majors regardless of special interests and abilities and serves as an integrating factor for students in the Department. ALDORNIA, the honor society of the Department, limits its membership to those English majors who excell in scholarship. The CREATIVE WRITING CLUB offers opportunities for writing and criticism to those students interested in composition as a creative art. The SENATE is a society limited to men of the College who are interested in discussing music, art, literature, and contemporary social problems.

Two publications of the Student Government Association, THE MONT-CLARION (the College Newspaper), and THE MONTCLAIR QUARTERLY (a literary magazine), and two in the College High School, THE CRIER (school newspaper), and LACAMPANILLA (school yearbook), are sponsored by the Department of English.

REQUIRED COURSES

Courses 100A, 100B, 200A, and 200B are required of all students. As the equivalent of English 200B speech majors and minors take English 103.

The following course requirements constitute the English major:

		Semester-hours
English 101.	The Language Arts	4
English 102.	Drama from the Miracle Plays to O'Neill	4
English 201.	Poetry from Chaucer to Frost	4
	British and American Fiction	4
English 301A.		2
English 301B.	Shakespeare's Major Plays	2
English 302.	Survey of American Literature	
	The Teaching of English in Secondary Schools	3
	Survey of British Literature	4
	ter-hour elective course upon return from student	
teaching	***************************************	2
		_
		33

Sixty observations divided between the junior and senior divisions of the College High School are required of senior English majors. These observations constitute partial fulfillment of the requirement to observe which is described in English 401.

In addition to courses listed in this bulletin, there are courses at the graduate level which are offered in the Part-Time, Extension, and Summer Sessions. These courses are open to undergraduates who have completed student teaching. These courses are described in detail in the Graduate Bulletin.

THE FIRST YEAR

The student begins his college study of English with a survey course in World Literature, required of all freshmen, which gives him an over-view of the development of Western Culture and provides background for his reading and thinking on aesthetic, ethical, social, and political problems. The English major takes the course in The Language Arts so that he may study the problems inherent in the communication of meanings through linguistic symbols and be better prepared to study and teach the uses of language. He also takes the course in Drama from the Miracle Plays to O'Neill, the first of three courses in which the major types of literary expression are investigated.

ENGLISH 100A and 100B. World Literature: Its Masters and its Forms

For a description of these courses, see page 46.

Credit: 3 semester-hours each

ENGLISH 101. The Language Arts

This course is designed to give the student a scientific understanding of the uses of language, to the end that he may learn to interpret more intelligently meanings conveyed through human speech and writing—including prose, poetry, and propaganda—and may be better equipped to teach high-school students to write, read, speak, and listen comprehendingly.

Credit: 4 semester-hours

ENGLISH 102. Drama from the Miracle Plays to O'Neill

This course is concerned with the historical development of English drama from its beginnings to the present day and analyzes the characteristics of drama as a literary form. Considerable emphasis is given to the contemporary drama.

Credit: 4 semester-hours

THE SECOND YEAR

All students in the second year are given special training in Composition (200A) and in Speech (200B). The English major continues his investigation of the development of the major types of literary expression by studying *Poetry from Chaucer to Frost* and *British and American Fiction*.

ENGLISH 200A. Composition

For a description of this course, see page 46.

Credit: 3 semester-hours

ENGLISH 200B. Fundamentals of Speech

For a description of this course, see page 47.

Credit: 3 semester-hours

ENGLISH 77

ENGLISH 201. Poetry from Chaucer to Frost

This course surveys the development of English poetry from its beginnings to the present time. Its study includes the types of poetic statement, the historical development of the styles and forms of English poetry, the life and work of the major British and American poets, and the critical appreciation of poetry as an art and as an expression of life.

Credit: 4 semester-hours

ENGLISH 202. British and American Fiction

This course is designed primarily to acquaint the student with the great novels of English and American literature from Defoe to Hemingway. A second major objective is to guide future teachers in the selection and treatment of novels suitable to high-school students of varying age levels and social backgrounds.

Credit: 4 semester-hours

THE THIRD YEAR

Having acquired a broad literary background in the first two years, in the third year the English major prepares for teaching high-school English by studying Literature for Adolescents, Shakespeare's Major Plays, and Survey of American Literature. During the spring semester of this year opportunities to elect courses of special interest are provided to English majors, and to majors in other departments.

ENGLISH 301A. Literature for Adolescents

A study of the reading interests of different age levels introduces problems involved in the selection of literature for students from the fifth through the twelfth grades. Reading and analysis of literature for children as well as for the young adolescent are required.

Credit: 2 semester-hours

ENGLISH 301B. Shakespeare's Major Plays

The plays of Shakespeare which are most frequently taught in the high school are studied. Discussion of Shakespeare's conception of tragedy and comedy, his dramatic art, the sources of his plays, staging in Shakespeare's theatre and in our own, and typical textual problems, provides the student with a background for teaching Shakespeare in the secondary school.

Credit: 2 semester-hours

ENGLISH 302. Survey of American Literature

A survey of American literature from its Seventeenth Century beginnings to the present day is undertaken in the course, and the political and social backgrounds are studied in the light of their influence upon literary history. Special attention is given to those classics which are frequently encountered in the highschool curriculum.

Credit: 4 semester-hours

ENGLISH 310. Journalism

This course is designed to qualify the student to teach high-school journalism. Its aim is to give the student training in recognizing news; gathering it; and preparing it for print, including copyreading, headline writing, proofreading, and page make-up. The course assumes little or no previous journalistic training.

Credit: 2 semester-hours

THE FOURTH YEAR

In its major purposes the fourth year looks forward to the student-teaching experience. The Department offers a detailed, chronological Survey of British Literature which demands intense and precise scholarship.

The Teaching of English implements the professional study which has been stressed continuously throughout the student's college career. By discussion, by daily observations, and by participation in the College High School, the meaning of those professional ideas and ideals that have been urged is demonstrated.

ENGLISH 401. The Teaching of English in Secondary Schools

Students are taught to develop and use materials of the classroom; lesson plans and units of work are prepared and presented for criticism; textbooks are analyzed for training in their use; and bulletin board exhibits and visual education materials are prepared by students for the class. Observation and criticism of teaching in the College High School, and criticism of student compositions are required.

Credit: 3 semester-hours

ENGLISH 401X. The Teaching of English in Secondary Schools

Students are taught to develop and use materials of the classroom; lesson plans and units of work are prepared and presented for criticism; textbooks are analyzed for training in their use; and bulletin board exhibits and visual education materials are prepared by students for the class. This course is offered only in summer sessions.

Credit: 2 semester-hours

ENGLISH 402. Survey of British Literature to 1798

This course draws together into a systematic narrative the story of the development of English literature from the beginnings to the romantic triumph in 1798.

Credit: 4 semester-hours

ENGLISH 404. Survey of British Literature

This course is a continuation of English 402. It takes up the story with the romantic triumph in 1798 and continues it to the present time.

Credit: 2 semester-hours

ENGLISH 407. British and American Biography

Both the old and new types of biography are read and studied in this course, with emphasis upon the Nineteenth and Twentieth Centuries. Biography is presented for its cultural and informational values, for its use in integrating the work of the various departments in the high school, and for its direct help in the vocational guidance program.

Credit: 2 semester-hours

ENGLISH 408. Creative Writing

Students in this course attempt seriously the standard literary forms in prose and verse. Each student is assisted in finding his own best field of writing, and is given further training in that field. The course is based entirely upon the needs of the class as revealed in student-written manuscripts. Much time is devoted to criticism and to discussion of mutual problems. Wherever possible, the course is made to reflect methods of creative teaching in the field of composition.

Credit: 2 semester-hours

ENGLISH 419. Grammar for Teachers

This course is a study of the basic facts of grammatical relationships in English, and of the current problems of "rules" as opposed to "usage." The primary aim of the course is to acquaint students with the true functions of grammar in speech and writing.

Credit: 2 semester-hours

ENGLISH 420. High School Classics

This course is a seminar for prospective student teachers on the problems of teaching literature in high schools. The student reads numerous articles on the "classics" vs. "moderns" controversy, becomes thoroughly acquainted with the contents and aims of the best high school anthologies currently in use, and builds up a working philosophy for his own teaching. Through the continual practice of reporting and discussion leading, the student is enabled to integrate his total experience in college.

Credit: 2 semester-hours

ENGLISH 421. The Short Story

The course traces the history of the short story as an evolving literary form, emphasizing the productions of the Nineteenth and Twentieth Centuries. Many stories are analyzed for both human and literary values. Professional use of the short story is the guiding purpose in the conduct of the course.

Credit: 2 semester-hours

ENGLISH 428. The Film and Society

This course considers the impact of the motion picture on our culture. The film is studied and evaluated as a powerful social and educative force, as an art

form, and as an entertainment medium. The origin and development of film techniques are treated, and films are shown at each session, accompanied by analysis and discussion. The scenario as a literary type and the adaptation of prose fiction for film purposes are included in the course content.

Credit: 2 semester-hours

ENGLISH 430. Reading in Secondary Schools

After examination of recent research concerning reading activities at various age levels, the class undertakes to evaluate methods devised to develop reading skills, to increase vocabularies, and to improve the comprehension of secondary-school students.

Credit: 2 semester-hours

ENGLISH 432. The Development of the Drama

The development of the drama is studied in all periods from ancient Greece and Rome through the Middle Ages and the Renaissance to the beginning of modern drama with Ibsen. The emphasis of the course is placed on the major characteristics of the drama and its necessary complement, the theatre. Representative plays are read and discussed.

Credit: 2 semester-hours

ENGLISH 446. The One-Act Play

This course studies the one-act play as an art form, devoting special attention to plays which are suitable for high school production.

Credit: 2 semester-hours

ENGLISH 451. Literature and Art in Western Culture

This course deals with the nature of literature and considers its importance as a factor in the development of international understanding. It deals with the relation between the use of language in literature and with the methods of art since the re-creation of experience is a function common to both. Through reading the literature which is being read by our neighbors today, both in Europe and in the Western Hemisphere, students are able to participate in a common experience with them.

Credit: 2 semester-hours

ENGLISH 459. A Survey of Great Chinese Literature

Some of the contributions which have gone into the making of Chinese literature, such as the *Book of Odes* of Confucius, the poems of Li Po and Tu Fu, the Lute Song, and the *Dream of the Red Chamber*, are considered in this course. Aside from a general survey of the great literature of China special attention is given to English translations of the masterpieces of Chinese literature. There are twenty-four hours of lectures in the morning; after lunch each day a period of forty-five minutes is devoted to informal talks, story-telling, singing of Chinese

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songs, and showing of motion pictures. During the workshop period individual students work on specific topics under the guidance of the instructor.

Prerequisite: SOCIAL STUDIES 499, Introduction to Chinese Culture

Credit: 3 semester-hours

THE SPEECH MAJOR

A growing recognition on the part of school administrators of the important role played by public speaking, discussion, conversation, and dramatic productions in achieving the goals of education has increased the demand for instructors of speech in the secondary schools. Such teachers must be able to guide students in learning to formulate and to express effectively their opinions concerning what they believe and hear. They must be able to lead and to participate in discussions and dramatic productions. Moreover, the frustrations, maladjustments, and character deterioration which result from being isolated from the group because of defective speech have been shown to be preventable, to a large degree, through speech correction. For that reason, speech correctionists are needed for work in elementary schools and often in an entire school system.

Since the teacher of speech and dramatics, in some school systems, is expected to guide both the speech improvement and the speech correction program, the speech major has been designed to prepare prospective teachers for positions as teachers of speech and dramatics and as speech correctionists.

Further experience in the field is afforded through extra-curricular activities sponsored by the Speech Department. PLAYERS, a society open to the entire student body, promotes interest in drama and gives at least two major productions each year. SIGMA ALPHA ETA, national speech correction honor society, is represented on this campus by Zeta Chapter. This organization brings outstanding speech authorities to the campus, conducts field trips, and supports Montclair's speech laboratory.

REQUIRED COURSES

The following course requirements constitute the speech major:

		Semester-hours
English 104.	Introduction to Phonetics	2
English 105.	Fundamentals of Acting.	
English 106.	Introduction to Oral Interpretation	
English 204.	Introduction to Public Speaking	2
English 208.	Physics and Physiology of Speech and Hearing	3
English 209.	Speech Correction	2
English 410.	Speech Pathology	
English 417.	Methods in the Teaching of Speech	3
English 435.	Stagecraft	2
English 456.	Play Direction	2
English 457.	Directing the Assembly Program	2
English 461A.	Speech Laboratory Practice	
English 461B.	Advanced Speech Laboratory Practice	
English 463.	Audio-Visual Aids in Teaching Speech	2
English 464.	Speech Psychology	2
English 465.	Speech Arts Activity	1

In addition to the course requirements for the speech major as listed above speech majors are required to take the following course:

THE SPEECH MINOR

Eighteen semester-hours of work, chosen from the following courses according to these stated requirements, constitute the speech minor. (English 103, Voice and Speech Improvement, is required of all speech majors and minors in lieu of English 200B, Fundamentals of Speech.) The requirements for the speech minor may then be met by the following courses:

- 1. Speech Fundamentals—5 semester-hours required
 Take English 104, Introduction to Phonetics, and
 English 208, Physics and Physiology of Speech and Hearing
- 2. PUBLIC SPEAKING—2 semester-hours required
 Take English 204, Introduction to Public Speaking
- 3. INTERPRETATION—2 semester-hours required

 Take English 106, Introduction to Oral Interpretation, or
 English 448, Choral Speaking
- 4. DRAMATICS—2 semester hours required
 Take English 105, Fundamentals of Acting, or
 English 435, Stagecraft, or
 English 456, Play Direction
- 5. SPEECH CORRECTION—4 semester-hours required Take English 209, Speech Correction, and English 410, Speech Pathology
- 6. METHODS—3 semester-hours required

 Take English 417, Methods in the Teaching of Speech

SEQUENCES OF COURSES

A. Required Sequences

English 103 during the first half of the sophomore year—prerequisite to other speech courses

English 208 in first half of sophomore year—prerequisite to English 209 and English 410

English 209 before or with English 410

B. Recommended Sequences

English 204 before English 449

English 105 before English 456

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Possible elections in speech for those desiring more than the minimum requirements listed above include the following courses:

English 454, Training the Speaking Voice

English 457, Directing the Assembly Program

English 461A, Speech Laboratory Practice

English 461B, Advanced Speech Laboratory Practice

English 463, Audio-Visual Aids in Teaching Speech

English 465, Speech Arts Activity

Transfer students please confer with a member of the speech faculty regarding courses taken elsewhere which can be accepted as fulfilling any of the above requirements.

THE SPEECH MAJOR-THE FIRST TWO YEARS

During the first two years the speech major is given experience in elementary courses in oral reading, speaking, acting, voice improvement, phonetics, and an introduction to speech correction.

ENGLISH 103. Voice and Speech Improvement

This course affords an opportunity for the students to develop their own voice and speech techniques and to eliminate faults. Consideration is also given to the procedures to use in helping others to improve voice and speech patterns.

Credit: 3 semester-hours

ENGLISH 104. Introduction to Phonetics

This course gives the students an acquaintance with the science of speech sounds. They learn to use the International Phonetic Alphabet as well as diacritical marks of lexicographers. The symbols are used both in transcribing and in reading from transcriptions.

Credit: 2 semester-hours

ENGLISH 105. Fundamentals of Acting

The techniques of acting, pantomime, and characterization are studied and practiced. Visits to professional theatrical productions for an analysis of acting techniques are required.

Credit: 2 semester-hours

ENGLISH 106. Introduction to Oral Interpretation

This course is organized to increase the student's appreciation of literature in the area of his special interest. The emphasis is on individual classroom performances followed by informal critiques, and the development of a repertory for specific classroom purposes.

Credit: 2 semester-hours

ENGLISH 204. Introduction to Public Speaking

The student studies techniques for preparing and delivering effective, informative, persuasive, and interesting speeches. He is given as many speaking opportunities as possible, followed by informal critiques. He also is given experience in moderating a program.

Credit: 2 semester-hours

ENGLISH 208. Physics and Physiology of Speech and Hearing

The fundamental principles of the physics of sound, the structure and operation of the vocal mechanism in producing speech sound, and the anatomy and function of the aural mechanism in detecting sound and distinguishing its various characteristics, especially those significant in the understanding of speech, are considered.

Credit: 3 semester-hours

ENGLISH 209. Speech Correction

A study of the problems inherent in such abnormalities as lisping, cluttering, vocal monotony, and general articulatory inaccuracies is undertaken in order that the nature of the problems, their diagnosis, and correction may be understood.

Prerequisite: English 208

Credit: 2 semester-hours

ENGLISH 435. Stagecraft

This workshop course provides training in constructing and painting of scenery and lighting the stage. A minimum of twelve clock hours of craft work is required for credit in this course.

Credit: 2 semester-hours

THE THIRD YEAR

During the third year the speech major is introduced to speech laboratory work under careful supervision, and learns the psychological principles of speech acquisition, as well as of oral communication. He puts dramatic theory into practice by his work with Players, and in a course in Speech Arts Activity. A course in the Audio-Visual Aids in Teaching Speech introduces him to the devices and materials he can use to enrich his teaching.

ENGLISH 410. Speech Pathology

This course deals with diagnostic and corrective procedures, causes, and treatment for major or pathological speech problems including severe stuttering, voice disorders, laryngectomy, cleft-palate, cerebral palsy, and aphasia.

Prerequisites: English 208 and 209

Credit: 2 semester-hours

ENGLISH

ENGLISH 457. Directing the Assembly Program

It is the purpose of this course to prepare students to organize and to conduct assembly programs and similar activities. Class lectures and discussions cover all phases of the director's responsibilities. Groups conduct research on suitable program materials and share their findings. Each student prepares a detailed script for one assembly or commencement program.

Credit: 2 semester-hours

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ENGLISH 461A. Speech Laboratory Practice

After the techniques of interviewing, of preparing case histories, of diagnosing speech disorders, of planning therapies, and of determining prognoses have been taught through lectures and demonstration lessons, each student is assigned one or more persons with speech defects for supervised practice in correcting speech disorders. Credit is given on a laboratory basis, and the course meets three hours weekly.

Credit: 2 semester-hours

ENGLISH 461B. Advanced Speech Laboratory Practice

This course provides for additional supervised speech correction practice with adults or children with speech disorders. Credit is given on a laboratory basis, and the course meets three hours weekly.

Credit: 2 semester-hours

ENGLISH 463. Audio-Visual Aids in Teaching Speech

The aim of this course is to equip prospective teachers to understand the desirable characteristics; capabilities; and all possible uses of charts, models, projection equipment, and magnetic and disc recorders available for the teaching of speech. The distribution, cost, operation, servicing, and storing of instruments and of supplies are also considered.

Credit: 2 semester-hours

ENGLISH 464. Speech Psychology

The mental processes involved in acquiring language and in using it in effective oral communication are reviewed. Problems involving psychological principles as they apply to oral teaching, to audience leadership and control, to the alleviation of stage fright, and to the teaching of speech improvement are considered along with the principles of general semantics.

Credit: 2 semester-hours

ENGLISH 465. Speech Arts Activity

Each speech major is required to earn at least one semester-hour of credit in some supervised speech-arts activity, such as: playing a major role in a major production; directing a three-act play or its equivalent; giving a public play reading or lecture recital; directing a series of assembly programs; or directing and producing a series of radio programs.

Credit: 1 semester-hour

THE FOURTH YEAR

The course in Methods in the Teaching of Speech should be for the speech major a review of the principles learned in previous courses with a multitude of suggestions for techniques to be used in imparting that knowledge and developing those skills in the students whom he will teach. With this overview there should emerge a clear picture of the place of speech skills in the educational pattern and a philosophy which will give depth to teaching throughout one's professional career.

ENGLISH 417. Methods in the Teaching of Speech

In this course a study is made of the objectives of speech education at each grade level; of the problems, approaches, materials, textbooks, and techniques in specific speech areas; of modern trends in instruction; and of the integration of speech with other academic departments of study.

Credit: 3 semester-hours

ENGLISH 448. Choral Speaking

As members of a speaking choir, students acquire skill in interpreting various forms of literature suitable for group treatment. Consideration is given to their use in the various grade levels in teaching. Students prepare a group of selections suitable for their particular interest and purpose.

Credit: 2 semester-hours

ENGLISH 449. Public Speaking

This is an advanced course in the theory and practice of public speaking. It provides opportunity for training in the more complex speech skills, especially in the techniques of leadership in speech situations and the techniques for making speech responses in cooperative situations.

Prerequisite: English 204 or the equivalent

Credit: 2 semester-hours

ENGLISH 454. Training the Speaking Voice

This is a course in the study of the problems of speech, the development of a pleasing speaking voice with precision in diction, and the application of speech skills to practical speaking situations.

Credit: 2 semester-hours

ENGLISH 456. Play Direction

This course covers the choosing and casting, as well as directing, of plays. Scenes are directed for class criticism, and a detailed prompt-book of one play is

prepared. Whenever possible, this play is given publicly before a student audience. This course complements English 435.

Credit: 2 semester-hours

ENGLISH 462. Group Discussion and Leadership

Students are taught the principles of democratic discussion and methods for guiding the committee meeting, panel symposium, lecture, and debate forums. Frequent opportunities to apply these principles and methods are given through discussion of topics chosen by the class.

Credit: 2 semester-hours

ENGLISH 466. Speech Development: Improvement and Reeducation

This course is intended for superintendents, principals, and classroom teachers who have little or no background in speech education. Consideration is given to the following topics: (1) speech development; (2) speech difficulties or problems found on the kindergarten, elementary, and secondary-school levels; (3) acquisition of good voice and speech characteristics; (4) use of techniques and materials in classrooms to motivate good speech patterns; and (5) ways of setting up and integrating speech education in school systems. Demonstrations with individuals and groups are made, and students are expected to prepare a practical project.

Credit: 2 semester-hours

ENGLISH 467. Oral Interpretation for the Teacher

This course is organized as a laboratory to help the teacher develop his potentialities in oral reading. Each student is given many opportunities to read aloud and to participate in informal critiques. Assistance is given in compiling a repertory of selections most useful in daily teaching.

Credit: 2 semester-hours

THE DEPARTMENT OF FINE ARTS

In September, 1954, a major in fine arts was offered for the first time in the College. Each year thereafter advanced courses are added until a complete four-year program is in operation. Students who complete this curriculum are prepared to teach fine arts in the elementary schools, junior high schools, and high schools of New Jersey.

During the first two years, the student explores a variety of art media including design in materials, ceramics, painting, theater arts, and commercial and industrial design.

The third year includes sculpture, home design and house furnishing, community planning and designing, and the development of the place of art in our civilization.

The fourth year gives an opportunity for the study of print making, textiles

and costume arts, the philosophy of art, art electives, art education, and the student-teaching experience.

The following fine arts courses are required for the major:

		Semester-hours
Fine Arts 101A & B.	Design in Materials	5
	Ceramics	
Fine Arts 200A & B.	Theater Arts	6
Fine Arts 201A & B.	Art in Commerce and Industry	6
Fine Arts 202A & B.	Painting	6
Fine Arts 300A & B.	Art and Civilization	6
Fine Arts 301A & B.	Home Design and Community Planning	
	Sculpture	6
	Philosophy of Art	
	Art Education	
	Textile and Costume Arts	
Fine Arts 403.	Print Making	
Fine Arts 406.	Art Workshop or Industrial Arts Elective	4
		-
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FRESHMAN YEAR

FINE ARTS 101A. Design in Materials

This course is an initial exploration of the elements of design and their organization into art forms. The relationship of materials, tools, and processes in terms of the function of each art form is learned through personal exploration in a wide variety of media. The integral nature of the arts and the culture is given major emphasis throughout the course. The reading content is based upon a study of contemporary art forms.

Credit: 3 semester-hours

FINE ARTS 101B. Design in Materials

This course is a continuation of Fine Arts 101A.

Credit: 2 semester-hours

FINE ARTS 102A. Ceramics

This course in ceramics includes the making of pottery forms by coil, slab, throwing, and casting as well as primitive techniques. All methods of decorating are explored including slip, agraffito, under glaze, and glaze. The making of glazes and experiments in glaze formulas are carried out. Stacking and firing the kiln are a part of each student's experience.

The course content includes a study of the world's great ceramic periods through reading and museum trips. A study is made of the relationship between children's art expression in clay and their expression in graphic media.

Credit: 2 semester-hours

FINE ARTS 102B. Ceramics

This course is a continuation of Fine Arts 102A.

Credit: 2 semester-hours

Fine Arts Course for Home Economics Majors

FINE ARTS 110. Introduction to Design in Materials

The elements of design and their organization into art forms such as ceramics, textiles, furniture, and other articles of home use are covered in this course. The relationship of materials, tools, and processes in terms of the function of each art form is learned through studio experiences. The reading content is based upon a study of the work of contemporary designers in the field of home furnishings.

Credit: 2 semester-hours

SOPHOMORE YEAR

FINE ARTS 200 A & B. Theater Arts

A major goal of this course is the development of techniques of group planning for the solution of an art problem and the awareness of individual responsibility for group achievement. Experiences are in the production of puppet and marionette shows and the preparation of scenery and lighting for live productions. Study in these areas and in the allied fields of dance, filming and television is made through reading, trips, and interviews.

Credit: 3 semester-hours each

FINE ARTS 201A&B. Art in Commerce and Industry

Lettering, layout, display, and exhibition techniques are developed in the workshop. College activities when possible supply the content of the technical problems. The relationship of hand art to machine art is considered, and the role of the artist-industrial designer in a technological age is studied to discover his contribution to a culturally healthy environment. Readings include philosophic writings of Morris, Mumford, and others and current national and foreign periodicals of industrial design. Trips to laboratories and studios are taken.

Credit: 3 semester-hours each

FINE ARTS 202A&B. Painting

This course includes experiences in many media and forms of painting. The student is encouraged to experiment with emphasis on personal vision and modes of expression. The use of design is directed to the formulation of a competent individual statement in a limited number of media. The development of painting, beginning with the impressionist movement and including contemporary directions, constitutes the major reading content of the course. A comparative study is made of the painting of primitive peoples, children, and contemporary artists. Frequent visits to galleries and museums are required.

Credit: 3 semester-hours each

ELECTIVE

FINE ARTS 210. Experiencing Art

This course is designed to give the student the experience of art through creating, selecting, arranging, contemplating, and reading. Emphasis is placed on the development of an understanding of the nature of art and the experience of art, and their significance to the individual and their role in a culture. The course content is selected from all art forms and is related to student needs and interests. Personal exploration of materials, tools and processes of art, readings in contemporary and historic art forms and art philosophy, trips to appropriate sources, and contacts with producing artists are procedural methods of the course.

Credit: 2 semester-hours

JUNIOR YEAR

FINE ARTS 300A&B. Art and Civilization

A study is made of historic periods in which art most clearly reflects the culture. The impact on art of geographic conditions and social, economic, and religious forces is studied. Present art forms are understood by a study of their historic roots. The course serves to integrate the student's historic art information and to develop his critical and evaluative abilities. Museum visits and extensive reading are required.

Credit: 3 semester-hours each

FINE ARTS 301A&B. Home Design and Community Planning

New trends in the design of the home and its furnishings and landscaping, architecture, and city planning are the content of this course. The work of major creative artists in the field is studied as art forms of our contemporary culture pattern. Technical work includes scale drawings, elevations, perspective drawings, color organizations, and model making.

Credit: 3 semester-hours each

FINE ARTS 302 A&B. Sculpture

This course provides the student with studio experiences in three dimensional expression. A variety of materials are explored, including clay, plaster, metal, plastics, stone and wood. Sculptural methods such as modeling, direct carving, construction, and casting are experienced. Special emphasis is placed on those materials and methods most applicable to the public school teaching program. In addition to the studio problems the student is required to complete text assignments and outside reading problems, make frequent museum and gallery visits, prepare written and oral reports on readings and visits, and spend additional time in designing.

Credit: 3 semester-hours each

SENIOR YEAR

FINE ARTS 400. Philosophy of Art

This course is designed to give the student a knowledge of the various theories of art and the nature of the art experience. Readings include the works of major philosophic writers, artists, and psychologists. Through discussion each student is encouraged to develop a personal philosophy of art education.

Credit: 2 semester-hours

FINE ARTS 401. Art Education

The content of this course includes a study of research findings of the pattern of child development in plastic and graphic media; the organization and presentation of art experience to the children of grades one through twelve; and the relationship of art to other areas of the curriculum; and the arts in the extra-curricular program within the school and the community. Practical aspects of teaching art including materials, tools and their source, cost, care and organization are experienced through classroom participation.

Credit: 2 semester-hours

FINE ARTS 402. Textile and Costume Arts

This course includes the designing and making of woven and decorated textiles for use. Textiles are woven on simple handmade looms, and on professional floor and table looms. Textiles are decorated by tie-dye, block print, batik, stencil, painting, silk screen and needlework. Costume designing emphasizes the suitability of line, color, and fabric to the individual and the occasion. Historic as well as contemporary fabrics and costume are studied through reading, visits to museums, shops, and galleries.

Credit: 4 semester-hours

FINE ARTS 403. Print Making

The many ways of making prints: etching, dry point, wood cuts, and wood engraving, lithography, silk screen, photograms, and photography are learned in personal production which emphasizes the relation of material, tool, and process. Adaptation of these professional media to classroom use is one aspect of this course. The work of masters in these various types of print making are studied in reproductions and in museum trips.

Credit: 4 semester-hours

FINE ARTS 406. Art Workshop

The workshop is designed to allow the student to have a concentrated experience in an art form of his choice. Each student projects his own problem in consultation with, and under the direction of, a faculty member. In addition the student is expected to set up an exhibit of the work he has accomplished during his four years.

ELECTIVES

FINE ARTS 408. Creative Painting

This course gives the student an opportunity to use the materials of the painter for personal creative experience. Through the use of oils, water colors, and other media, the student is encouraged to work on landscape, figure, and free imaginative composition. Emphasis is placed on individuality of expression, variety of subject matter, and experimentation. No previous art experience is necessary.

Credit: 2 semester-hours

FINE ARTS 414. History of Chinese Art

In this course the developments and distinguishing characteristics of the major arts of China are traced by specialists and are surveyed from the point of view of their historical developments. A historical survey of the development of Chinese art from the dawn of civilization to the present day is made which includes the role played by foreign influences such as the spreading of Buddhism and the Chinese influence on other parts of the world. There are twenty-four hours of lectures in the morning and round-table discussion and library work in the afternoon. During the afternoon workshop period the technique of Chinese painting is demonstrated. Although there is no prerequisite for this course, it is suggested that those who enroll should have some knowledge of art or have taken Social Studies 499, Introduction to Chinese Culture.

Credit: 3 semester-hours

FINE ARTS 415. School Arts and Crafts with Native Materials

In this course the student gains an appreciation and understanding of art expression growing out of the immediate environment as he learns to work creatively with native materials. Useful and decorative articles are made from wood, fruit pits, seeds, grasses, reeds, and native clay. The use of natural dyes for coloring is demonstrated. The construction of teaching aids using simple, native materials is also shown. Flower and plant arrangements for room and table decoration in keeping with good conservation practices are presented.

Credit: 2 semester-hours

FINE ARTS 416. Appreciation of Chinese Art

This is an introductory course on Chinese art in its various aspects: its historical development; aesthetic principles; and various forms such as calligraphy, painting, sculpture, bronze and jade, pottery and porcelain, architecture, etc. Topics include the philosophical basis of Chinese art, nature in Chinese art, and symbolism in Chinese art. Each lecture is illustrated by photographs and lantern slides as well as demonstrations. Students have an opportunity to learn the elements of Chinese painting from widely recognized Chinese artists.

THE DEPARTMENT OF FOREIGN LANGUAGES

The Foreign Language Department aims to train teachers for the junior and senior high schools in sound scholarship, true culture, and sympathetic understanding of the foreign people whose language they are to teach. The Department is also offering courses preparing students for the teaching of foreign languages in the elementary school.

All the courses in the Department of Foreign Languages are planned to provide linguistic skill, literary appreciation, and understanding of human relationships in order to insure efficient professional service. The emphasis is on sequential development which has the effect of unifying the work within the Foreign Language Department and of correlating it with English, social studies, integration, art, and music.

Students majoring in a foreign language are required to take work in that language for the four years of the college course. In these four years the prospective teacher of French, Spanish, or Latin acquires a fundamental knowledge of his major subject and an understanding of world problems.

For majors in a chosen language the following courses are required: 101, 102, 201, 202, 301, 302, 401, 402 and 404.

For minors in a foreign language the following courses are recommended: 101, 102, 201, 202, and 402.

Prerequisite for those majoring or minoring in any foreign language are three or four years of high school work in the language. Consideration will be given to excellent students who have not fully met this requirement. High school Latin is desirable for all language work, but it is not prerequisite for the study of a modern language at the College. The class work in French and Spanish is conducted entirely in these languages.

The Foreign Language Department sponsors three language clubs. In these extracurricular activities prospective language teachers have ample opportunity for leadership, creative work, and worthy employment of leisure time.

The College High School plays an important part in the daily life of students of the Foreign Language Department. During the freshman and sophomore years regular observation of the high school classes in the language of their major is required. A change from observation to active participation through limited assistantship and occasional demonstration is made during the junior and senior years. Thus, the subject-matter of high school and college language classes is thoroughly integrated.

An attractive feature of the foreign language work preparatory to high-school teaching is the possibility of a year of study in a foreign country, a feature which this College stresses in its training of teachers of modern languages.

Students desiring academic credit for STUDY ABROAD register for the work before taking it. All such matters as the country and institution in which the work is to be done, the amount of credit to be received, reports to be made, and the like, are prearranged with the head of the department. For further information about this work, see page 32.

In the last twenty years, one hundred and forty students from the College have spent a year of study in colleges and universities of Austria, France, Germany, Canada, Mexico, Spain, Switzerland, and South America.

In appreciation of the professional help granted to Montclair students by foreign countries students from abroad interested in the teaching of English in the schools of their home countries have been invited as guests for a year of study at Montclair State Teachers College. In the past students from Austria, Germany, France, Cuba, Mexico, and Spain have taken work at the College.

It is impossible to estimate to its full extent the importance of this student exchange movement in the field of education. It may prove to be one of the most vital steps in the advancement of modern foreign language teaching in American high schools of today and tomorrow.

FRENCH

The following courses are arranged to give the prospective high school teacher of French an understanding of the French people, their culture, and their problems through a study of the development of their civilization—their social, economic, political, literary, and artistic life. All courses are given entirely in French, and are designed to give ever-increasing opportunities to develop self-expression in the foreign tongue through readings, discussions, and reports.

The following course requirements constitute the French major:

		Semester-hour
French 101.	French Civilization: Early Periods	4
French 102.	French Civilization: Renaissance	4
French 201.	French Civilization: 17th Century	4
French 202.	French Theatre: Corneille, Molière, Racine	4
French 301.	French Civilization: 18th Century	4
French 302.	French Civilization: The Romantic Movement	4
French 401.	The Teaching of French in Secondary Schools	
French 402.	Advanced French Grammar and Composition	4
French 404.	The Great Currents of Contemporary French Literature	3 2
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THE FIRST YEAR

French Civilization

FRENCH 101. French Civilization: Early Periods FRENCH 102. French Civilization: Renaissance

The freshman courses present the background for all subsequent linguistic and literary studies in French. During the first semester special attention is devoted to bringing all the students up to a uniform level of development in speaking, reading, and writing French so that homogeneous class work may be assured. This objective is accomplished by a careful appraisal of the results of the required years of study of high-school French, the correction of weaknesses discovered, constant training in speaking French both in the classroom and in special conversation classes, and practice in French composition and dictation. During this year, especially in the second semester, definite units of work in

French civilization are presented with special emphasis on the geography of France and French history to the 17th Century.

Credit: 4 semester-hours each

THE SECOND YEAR

Seventeenth Century French Literature

FRENCH 201. French Civilization: 17th Century

FRENCH 202. French Theatre: Corneille, Molière, Racine

In the sophomore year the student is introduced to the literature and life of the 17th Century, an age of important French contributions to the world's literature. Although special attention is given to the works of the three great French dramatists, the contributions of other significant writers are carefully examined. These include Descartes, Boileau, Bossuet, Pascal, La Fontaine. The colorful reigns of Louis XIII and Louis XIV furnish the historical background of this century.

Credit: 4 semester-hours each

THE THIRD YEAR

FRENCH 301. French Civilization: 18th Century

FRENCH 302. French Civilization: The Romantic Movement

The junior courses aim to train students in all phases of the literature of 18th Century France and the Romantic Movement. In them it is sought to evaluate French thought, to present a picture of French civilization as expressed in architecture, painting, sculpture, furniture, music, and by so doing to throw some light on the problems of contemporary France. These courses constitute an advanced language study based on explication de textes of representative authors, both prose writers and poets.

Credit: 4 semester-hours each

THE FOURTH YEAR

Theory and Practice in the Teaching of French

The courses in French during the senior year are designed to combine all the professionalization of previous French courses with a careful study of the teaching of French in the secondary schools. The period of practice teaching allows the prospective teacher to test his scholarly preparation under the guidance of a successful high-school teacher.

FRENCH 401. The Teaching of French in Secondary Schools

For a description of this course, see LANGUAGE 401, page 102.

FRENCH 402. Advanced French Grammar and Composition

This course develops a complete review of French grammar and composition as a basis for advanced work in writing of French. It emphasizes syntax and style, the explanation of forms in the light of historical grammar, and includes a study of selected French readings to determine their suitability for high-school use on the basis of diction and grammatical usage.

Credit: 4 semester-hours

FRENCH 404. The Great Currents of Contemporary French Literature

A survey of contemporary French literature is based on the study and interpretation of French civilization and literature in the pre-war, war, and post-war generations. The threefold aim of the course is: (1) to help the student better to understand and to appreciate the new trends of thought in France through literary interpretation; (2) to enable him to plan his reading intelligently by selecting from the abundant materials that contemporary literature offers to his choice; and (3) to give him a background for a more thorough study of this period of French literature. The course includes lectures, class and individual readings, and discussions.

Credit: 2 semester-hours

FRENCH 405. Development of the French Novel

This course traces the development of the various types of French novel from its origin to our times.

One work characteristic of each period of development is read and analyzed for its background revealing life in France, its character delineation, and its literary value and influence. The student is expected to read extensively and critically and to report on his findings.

Credit: 2 semester-hours

FRENCH 410. The Anthology of French Poetry

This course presents a picture of the development of the French language and literature through the study of poetry as an expression of different literary movements. Authors representative of each period are studied, with special emphasis placed on the fifteenth and sixteenth centuries and the literary schools following the romantic movement. The course is conducted in French and provides opportunity for the improvement of clearness of enunciation and pronunciation as well as for personal enrichment through an appreciation of French poetry.

Credit: 2 semester-hours

FRENCH 415. The French Club and Other Extra-Curricular Activities

This course, designed particularly for teachers of French, surveys briefly the aims of extra-curricular activities in modern language work and emphasizes especially: (1) the organization of extra-curricular activities, (2) the prepara-

tion of materials, and (3) the procedures. The course is conducted in French on the model of a forum with general discussion. The actual conduct of an extracurricular activity is required as a laboratory exercise.

Credit: 2 semester-hours

FRENCH 420. French Culture for the Elementary School

This course provides foreign language teachers on the elementary-school level with a rich background for the teaching of French in grades one through six. It includes a review of French human geography including the provinces, customs, food, songs, and dances; French history through a study of the great men and women of France; and French holidays and holy days. This course is conducted entirely in French, and the materials are presented with a view toward enabling teachers to present various aspects of French culture to elementary school pupils.

Credit: 3 semester-hours

LATIN

The courses in Latin are designed to continue the work begun in the language in high school. Further development of the ability to read and to comprehend the language and literature, and a deepening of the understanding and appreciation of the historical-cultural prominence of Rome and her contribution to Western civilization are basic objectives. Emphasis is placed upon the evolution of the language as it developed from the Greek to the Romance, upon the language of ideas as they are expressed in the literary masters, and upon the social, political, and economic institutions which have influenced the Western world.

The following course requirements constitute the Latin major:

		Semester-hours
Latin 101.	The Masters of Prose Literature	4
Latin 102.	The Masters of Poetic Literature	4
Latin 201.	Roman Letter Writing	4
Latin 202.	Roman History and Biography	4
Latin 301.	Roman Drama	4
	Roman Satire	
	The Teaching of Latin in Secondary Schools	
	Advanced Latin Grammar and Composition	4
Latin 404.	Medieval Latin	2
		33

THE FIRST YEAR

The Golden Age of Latin Literature

LATIN 101. The Masters of Prose Literature

LATIN 102. The Masters of Poetic Literature

These courses enable the student to sample the writings of the major figures in Rome's richest period. The variety of subject matter, the diversity of inter-

ests, the importance of style in expressing ideas are noted in studying the authors, as well as an analysis of the age to determine causes for greatness.

Credit: 4 semester-hours each

THE SECOND YEAR

The Silver Age of Latin Literature

LATIN 201. Roman Letter Writing

LATIN 202. Roman History and Biography

The nature of the writings of the authors read from the Silver Age permits a more intimate view of the daily life of the Romans, completing the student's concept of a typical Roman, the public figure of the Golden Age and the private citizen of the Silver Age, as well as illustrating contrast in lofty and familiar language and style.

Credit: 4 semester-hours each

THE THIRD YEAR

Roman Drama and Philosophy

LATIN 301. Roman Drama

LATIN 302. Roman Satire

The Roman dramatists are presented not because of the merit of the plays but because of their value in the development of drama as a literary type. Particularly notable are the borrowings from the plays by the pre-Shakespearian dramatists, Shakespeare, and the Romance dramatists. The language in Plautus serves to illustrate early forms and the language in its developmental process. Seneca's plays give rise to discussion of functions of drama and standards of literary criticism. The satire is a mirror reflecting the life of the period, indicating forces at work which are undermining Rome's great record and reputation, forces which eventually spell her decline.

Credit: 4 semester-hours each

THE FOURTH YEAR

Theory and Practice in the Teaching of Latin

The senior courses in Latin are designed to provide an outlet for the cumulative experience of the Latin student with great minds and great achievements of a great world power through teaching the language in a secondary school after materials and methods have been carefully collected and studied. The period of student teaching allows the prospective teacher to test his preparation under the guidance of a highly successful high-school teacher.

LATIN 401. The Teaching of Latin in Secondary Schools

For a description of this course, see LANGUAGE 401, page 102.

LATIN 402. Advanced Latin Grammar and Composition

The aim of this course is to develop a comprehensive view of Latin grammar, to give practice in the writing of Latin according to the styles of Caesar and Cicero, to study those styles as evidenced in the best-known works, and to set up standards of criticism of both prose and poetical writing. These objectives stress materials useful in high-school teaching.

Credit: 4 semester-hours

LATIN 404. Medieval Latin

The special emphasis in this course is on the transition of the language from Classical to Romance. The attention centers on literature of church and state for the purpose of studying the evolution of modern western ideas.

Credit: 2 semester-hours

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SPANISH

Following the trend of the times, the work in Spanish while maintaining the classic approach is now placing considerable emphasis on Hispanic-American civilization. To a great extent our national policy of Western hemisphere comity and the immediate economic importance of Central and South America underlie the present keen interest of high-school students in the study of Spanish. The courses are given in Spanish and are designed to give the prospective teacher of Spanish ample opportunities for self-development in the foreign tongue through readings, discussions, and reports.

The following course requirements constitute the Spanish major:

		Semester-hou
Spanish 101.	Civilization of Spain	4
Spanish 102.	History and Literature of Spain	4
Spanish 201.	The Period of Conquest and Colonization by Spain	4
Spanish 202.	The Period of Independence to the Present Time	4
Spanish 301.	Cervantes	4
Spanish 302.	Lope de Vega, Tirso de Molina, Calderón de la Barca	
Spanish 401.	The Teaching of Spanish in Secondary Schools	
Spanish 402.	Advanced Spanish Grammar and Composition	4
Spanish 404.	The Romantic Movement	2
		33

THE FIRST YEAR

Spanish Civilization

SPANISH 101. Civilization of Spain

SPANISH 102. History and Literature of Spain

During the first semester of study, the prospective teacher of Spanish is expected to gain an understanding and appreciation of Spain. The work of the second semester is concentrated on the civilization and literature of Spain up to the 17th Century. Factual knowledge is aimed at throughout the year, but fluency

in speaking Spanish is the prime objective. Grammar and composition are emphasized.

Credit: 4 semester-hours each

THE SECOND YEAR

Hispanic-American Civilization

SPANISH 201. The Period of Conquest and Colonization by Spain SPANISH 202. The Period of Independence to the Present Time

The work in Spanish during the second year is devoted entirely to the acquisition of knowledge about the current culture patterns of South and Central America. Each period is taken up in turn, and attention is specifically directed to changes in the culture patterns produced by the conquest and colonization by Spain and the subsequent struggles for independence. The religious, social, economic, political, and artistic aspects of the life of these periods as well as the historical background in relation to Spain are carefully treated through Spanish literature. This work is done in Spanish with appropriate attention to grammar and composition.

Credit: 4 semester-hours each

THE THIRD YEAR

The Spanish Classics

SPANISH 301. Cervantes

SPANISH 302. Lope de Vega, Tirso de Molina, Calderón de la Barca

In the third year the prospective teacher of high-school Spanish is expected to gain a literary understanding and cultural appreciation of the classical age of Spanish literature. While many of the outstanding works of the classical authors are read and discussed, a few masterpieces are studied intensively. The sources, structure, style, versification, and character descriptions are carefully examined against a comprehensive study of the historical background of the 16th and 17th centuries. Special attention is directed during this year to such grammar and forms as are required in class discussions and free composition.

Credit: 4 semester-hours each

THE FOURTH YEAR

Theory and Practice in the Teaching of Spanish

The courses in Spanish during this year are designed to combine all the professionalization of previous Spanish courses with a careful study of the teaching of Spanish in secondary schools. The period of practice teaching allows the prospective teacher to test his scholarly preparation under the guidance of a successful high-school teacher.

SPANISH 401. The Teaching of Spanish in Secondary Schools

For a description of this course, see LANGUAGE 401, page 102.

Credit: 3 semester-hours

SPANISH 402. Advanced Spanish Grammar and Composition

This course develops a complete review of Spanish grammar and composition as a basis for advanced work in the writing of Spanish. It emphasizes syntax and style, the explanation of forms in the light of historical grammar, and includes a study of selected Spanish readings to determine their suitability for high-school use on the basis of diction and grammatical usage.

Credit: 4 semester-hours

SPANISH 404. The Romantic Movement

This course aims to present the literary and historical study of the 19th Century, the Romantic Movement, after a survey of the different movements in Spanish poetry.

Credit: 2 semester-hours

SPANISH 405. Modern Spanish Literature: Selected Authors

This course is concerned especially with those Spanish authors whose works are frequently drawn upon for the reading selections in modern Spanish textbooks used in high-school teaching. Its aim is to present current trends in Spanish literature. Particular attention is devoted to the lives of the authors studied and to the effect of the times on the character of their works.

Credit: 2 semester-hours

SPANISH 406. Studies in Modern Spanish Literature

This course is concerned with the Renaissance in Spanish literature which began in 1898, following a confused period of political, economic, and social unrest. It traces the literary trends in drama, poetry, and the novel of recent years. Class discussion and individual reports on specific subjects are required.

Credit: 2 semester-hours

SPANISH 415. Projects in Spanish and Latin-American Folklore

This course, designed particularly for teachers and students of Spanish, surveys briefly the aims of extra-curricular activities in the field of Spanish teaching and emphasizes especially: (1) the organization of extra-curricular activities, (2) practical instruction in the preparation of materials, songs, dances, costumes, and (3) artistic presentation of the results of the course in a carefully supervised program given on the college campus.

SPANISH 420. Spanish Culture for the Elementary School

This course provides foreign language teachers on the elementary-school level with a rich background for the teaching of Spanish in grades one through six. It includes a review of Spanish human geography including the provinces, customs, food, songs, and dances; Spanish history through a study of the great men and women of Spanis; and Spanish holidays and holy days. This course is conducted entirely in Spanish, and the materials are presented with a view toward enabling teachers to present various aspects of Spanish culture to elementary school pupils.

Credit: 3 semester-hours

LANGUAGE

Background Course

The students of all college departments are expected to broaden and intensify their command of English by taking the following course arranged by the Language Department for the junior year. It aims to arouse their intellectual curiosity in the origin, development, and range of language in general, and of English in particular, so that, henceforth, they will be more word-conscious and their teaching will benefit by an extended and more sensitive use of their mother tongue.

THE THIRD YEAR

LANGUAGE 300. Foundations of Language

For a description of this course, see page 47.

Credit: 2 semester-hours

THE FOURTH YEAR

Professional Courses

Seniors in the Department of Foreign Languages are expected to gain a critical insight into modern methods of foreign-language teaching. An analysis of actual practice motivates the systematic survey of this field of special interest with a theoretical selection of aims and procedures in preparation for the teaching of foreign languages in high schools.

LANGUAGE 401. The Teaching of Foreign Languages in Secondary Schools

The work of this course is focused on such topics as the following: values of foreign language teaching; ultimate and immediate aims in foreign language teaching; survey of the outstanding methods, pronunciation, oral work, reading, grammar, reviews, realia, examinations, tests, supervised study, etc. The course consists of readings and discussions, lesson planning and demonstrations, and organization of materials for use in student-teaching.

LANGUAGE 402. Phonetics

This course aims to give special training in the analysis of speech production from the physiological and acoustical standpoints and in detecting, analyzing, and correcting errors in pronunciation of foreign languages. Students planning to teach French or Spanish are instructed in the use of the accepted symbols of the International Phonetic Association. Modern textbooks in foreign languages are examined for their treatment of pronunciation. This course consists of the making of phonetic charts, work in the phonetic laboratory, continued drill in transcribing passages from foreign languages into phonetic symbols. This course is open to juniors and seniors, majoring or minoring in Spanish or French.

Credit: 2 semester-hours

LANGUAGE 412. Foundations of Language, Advanced Course

This course continues the study of linguistics in general and of our own Indo-European group in particular. It focuses especially upon the origin, history, and development of Latin, French, German, Spanish, and English phonology, morphology, and vocabulary. Through lectures and collateral reading the student is acquainted with the latest research findings in linguistics. Maps and charts are required for the graphic presentation of each unit of work, and an individual report on some phase of this field is presented to the class by every student.

Credit: 2 semester-hours

LANGUAGE 415. World Languages

This course presents a practical introduction to the learning of any foreign language. Through the use of International Phonetic Symbols and Linguaphone Records, students acquire skill in the recognition and identification of foreign speech sounds. Ear, lip, and tongue training are combined to insure adequate ability in the pronunciation of foreign sounds with scientific accuracy. The course is designed for all students in the language field.

Credit: 2 semester-hours

LANGUAGE 420. The Teaching of Foreign Languages in the Elementary School

This course includes an exploration of the reasons for teaching foreign languages in the elementary schools and a study of appropriate grade levels for beginning foreign languages. Current literature on this subject is used to provide study materials and bases for reports by students. Attention is given to the study and evaluation of the many syllabi and guides now available for the teaching of French and Spanish in the elementary school. As an outcome of this course a syllabus covering grades one through six is produced by the class.

THE DEPARTMENT OF HOME ECONOMICS

In September, 1954, a major in home economics was offered for the first time in the College. Each year thereafter advanced courses are added until a complete four-year program is in operation. Students who complete this curriculum are prepared to teach home economics in the elementary schools, junior high schools, and high schools of New Jersey.

The following courses are required for the major in home economics:

	Semester-hours
Home Economics 101. Introduction to Home Economics	3
Home Economics 102. The Child in the Family	
Home Economics 201. Introduction to Foods and Nutrition.	3
Home Economics 202. Family Clothing Construction	3
Home Economics 210. Textiles	2
Home Economics 301. Meal Planning	3
Home Economics 302. Nutrition	2
Home Economics 303. Advanced Clothing Selection and Cons	
Home Economics 304. Housing and Home Furnishings	
Home Economics 305. Family Relations	
Home Economics 306. Family Finance	
Home Economics 401. Home Economics Education	
Home Economics 402. Nutrition Education and Group Feeding	<i>1g</i> 2
Home Economics 403. Home Management House Residence	3
	Total 39
RELATED ART AND SCIENCE COURSES	
Chemistry 103. Chemistry for Home Economics, I	4
Chemistry 104. Chemistry for Home Economics, II	4
Biology 209. Human Biology	3
Biology 210. Elementary Bacteriology	4
Physics 306. Household Physics	4
Fine Arts 110. Introduction to Design in Materials	2
	Total 21

FRESHMAN YEAR

HOME ECONOMICS 101. Introduction to Home Economics

The purpose of this course is to gain insight into the special skills, attitudes, and knowledge needed by the home-economics teacher. A survey is made of the modern homemaker's problems with educational implications in each of the major areas of instruction: foods and nutrition; housing, home management, and household equipment; clothing and textiles; home furnishings; child development; family economics; and family and community relationships.

Credit: 3 semester-hours

HOME ECONOMICS 102. The Child in the Family

The purpose of this course is to develop an understanding of the role of the family in meeting the basic needs of children and in guiding their development. Opportunities are provided for supervised observation and participation with groups of pre-school children.

Related Science

CHEMISTRY 103 and 104. Chemistry for Home Economics

This course provides an opportunity for students of home economics to become acquainted with the major principles of chemistry and their applications in the field of home economics. The content of the first semester is selected from inorganic chemistry. The work of the second semester deals with topics from the fields of organic and biochemistry. The laboratory, reference work, and field trips attempt to show the importance of the contributions of chemistry to the field of home economics.

Credit: 4 semester-hours each

SOPHOMORE YEAR

HOME ECONOMICS 201. Introduction to Foods and Nutrition

The essentials of an adequate diet; the functions of various food nutrients and their requirements by different individuals; planning daily and weekly menus; selection and preparation of foods for the family, emphasizing the basic principles and processes, are the principal topics of this course. Some problems treated in this course relate to the preparation of vegetables, meats, breads, cakes, and pastry. Standard techniques of food preparation are stressed.

Credit: 3 semester-hours

HOME ECONOMICS 202. Family Clothing Construction

This course is an introduction to the study of the important position of clothing, considering sociological, psychological, and economic aspects. Clothing planning, selecting, and buying are studied. The choice and use of color, design, and fabric in relation to individual clothing needs are emphasized and applied in the construction of simple garments.

Credit: 3 semester-hours

HOME ECONOMICS 210. Textiles

This course provides a study of the factors that influence durability, use, and price of household and clothing fabrics. Recognition and analysis of fibers, fabrics, and finishes, centered around problems in the selection and buying of textiles for clothing and household purposes are included in the course. Consumer education in the field of textiles and textile economics is stressed.

Credit: 2 semester-hours

Related Art and Science

FINE ARTS 110. Introduction to Design and Materials

The elements of design and their organization into art forms such as ceramics, textiles, furniture, and other articles of home use are covered in this course. The

relationship of materials, tools, and processes in terms of the function of each art form is learned through studio experiences. The reading content is based upon a study of the work of contemporary designers in the field of home furnishings.

Credit: 2 semester-hours

BIOLOGY 209. Human Biology

The course is designed for home economics majors. Bodily structure, functioning of parts, how that functioning affects human behavior are all considered. Primary emphasis is placed upon physiology rather than morphology and upon the maintenance of good health of the individual and of the community.

Credit: 3 semester-hours

BIOLOGY 210. Elementary Bacteriology

Since the course is designed for the home economics student, it is concerned primarily with these bacteria and fungi associated with food and nutrition, sanitation, hygiene, industry, and disease. Identification of the organisms, their economic importance, and their control are emphasized.

Credit: 4 semester-hours

JUNIOR YEAR

HOME ECONOMICS 301. Meal Planning

Meal planning with experiences in menu planning, marketing, preparing and serving meals for the family, and efficient management of time and equipment are the topics covered in this course.

Credit: 3 semester-hours

HOME ECONOMICS 302. Nutrition

This course is a study of the body needs for energy, growth, and regulation. Special study is made of child nutrition.

Credit: 2 semester-hours

HOME ECONOMICS 303. Advanced Clothing Selection and Construction

Advanced construction principles with an intensive study of the practical methods of solving fitting problems are treated in this course. Application is made of principles of costume design and clothing selection of ready-to-wear clothing and in the construction of advanced clothing problems.

Credit: 3 semester-hours

HOME ECONOMICS 304. Housing and Home Furnishings

Housing needs of the family today and the factors that affect them: costs, space organization, housing control and legislation, and construction materials are topics of this course. Furnishings for the home—furniture, rugs, draperies, etc.,—

and how to select, buy, and arrange them in different kinds of homes are also topics of study.

Credit: 3 semester-hours

HOME ECONOMICS 305. Family Relations

Topics of this course include emphasis on preparation for marriage and problems of human behavior within homes: emotional development, personality, environmental, and background factors in relation to marriage adjustment, and family relations of the individual throughout the family-life cycle.

Credit: 3 semester-hours

HOME ECONOMICS 306. Family Finance

Money management, budgeting, saving, use of credit, insurance, annuities, investments, taxation and disposing of property are the principal topics of this course. The effect of outside economic conditions on family financial planning is studied.

Credit: 3 semester-hours

HOME ECONOMICS 307. Home Management and Household Equipment

Equipment that is used in the home and how to use it effectively; principles of time and energy management; storage; materials used in household equipment; how equipment is constructed for durability, suitability, and ease in cleaning are important topics of this course. Opportunities are provided to evaluate various kinds of equipment including sauce pans, egg beaters, toasters, washing machines, irons, vacuum cleaners, etc.

Credit: 3 semester-hours

Related Science

PHYSICS 306. Household Physics

This course covers the following subdivisions of general physics: mechanics, heat, electricity and magnetism, sound, and light. The emphasis throughout is on the applications to equipment used in the home. The course consists of demonstrations, lectures, discussions, problem-solving, and laboratory experiments.

Credit: 4 semester-hours

SENIOR YEAR

Home Economics 401. Home Economics Education

Planning courses of study, illustrative material, evaluating teaching techniques, planning space and equipment needs, administrative problems, home economics clubs, vocational home-making programs, adult classes, and the place of the home economics teacher in the total school program are the topics of this course.

HOME ECONOMICS 402. Nutrition Education and Group Feeding

This course includes a study of adequate menu planning for large groups, use of standardized recipes, quantity buying and preparation of foods, and problems involved in school-lunch management.

Credit: 2 semester-hours

Home Economics 403. Home Management House Residence

This course includes residence in the home management house integrating the understanding, knowledge, and skill gained from various phases of home economics. Principles of time, energy, and money management are put into practice. Planning and preparing meals, doing the laundry, cleaning and caring for the house, and planning and carrying through a variety of entertainments are examples of home-making activities experienced by the student.

Credit: 3 semester-hours

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THE DEPARTMENT OF INDUSTRIAL ARTS

In September, 1954, a major in industrial arts was offered for the first time in the College. Each year thereafter advanced courses are added until a complete four-year program is in operation. Students who complete this curriculum are prepared to teach industrial arts in the elementary schools, junior high schools, and high schools of New Jersey.

The Industrial Arts Department emphasizes the relation of the cultural aspects of arts to the development of civilization and the vital part that industry plays in the life of each of us today. Creative satisfactions resulting from well-designed and carefully executed projects are provided for in the experience the student finds in this area.

The industrial arts program of the College offers opportunities for the student to broaden his concepts of the industrial world in which he lives. This is achieved through experiences in the woodworking, metal-working, power, arts and crafts, graphic arts, drawing and planning, areas. It is presupposed that the student enrolling in the industrial arts program has had preliminary training. In addition to increasing the above knowledges and skills, the student is directed in the techniques of teaching industrial arts in the elementary, junior, and senior high schools.

Students applying for admission to the industrial arts program are encouraged to gain industrial experiences through actual contact with industrial firms.

The following industrial arts courses are required:

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	S	emester-hour
Industrial Arts 100.	Introduction to Industiral Arts	2
	Graphic Arts and Drawing, I	
Industrial Arts 101B.	Graphic Arts and Drawing, II	
Industrial Arts 201A.	Wood and Crafts, I	
	Wood and Crafts, II	
	Metals and Power, I	
Industrial Arts 202B.	Metals and Power, II	4

Industrial	Arts	300A.	Principles, Methods, and Curriculum in	
			Industrial Arts, I	2
Industrial	Arts	300B.	Principles, Methods, and Curriculum in	
			Industrial Arts, II	2
Industrial	Arts	301A.	Wood and Crafts, III	4
Industrial	Arts	301B.	Wood and Crafts, IV	4
Industrial	Arts	302.	Graphic Arts and Drawing, III	4
Industrial	Arts	402.	Comprehensive General Shop	4
Industrial	Arts	403.	Metals and Power, III	4
				_
plus	300 h	ours of	supervised work experience	50

FRESHMAN YEAR

INDUSTRIAL ARTS 100. Introduction to Industrial Arts

This is an orientation course introducing the student to the nature and content of the industrial arts program, the laboratory technique for individuals and groups, techniques of study, organizational problems in the laboratory, and the professional aspects in a career as an industrial arts teacher.

Credit: 2 semester-hours

INDUSTRIAL ARTS 101A. Graphic Arts and Drawing, I

This course is intended to be quite general in scope and is organized as an introductory shop course. The graphic arts area includes an introduction to printing, study of basic technical information, composition, proof reading, distribution, press work, paper cutting, padding. The drawing area includes an introduction to drawing instrument selection, sketching, blackboard illustration, basic design, single and multiview projections, lettering, sections and conventions, dimensions, and notes.

Credit: 4 semester-hours

INDUSTRIAL ARTS 101B. Graphic Arts and Drawing, II

The second experience in the area of graphic arts and drawing affords the student opportunity for further exploration and study. The area of graphic arts includes principles of layout and design, ink, paper, linoleum block arts, wood arts, composition, and presswork. Drawing embodies the development of surfaces and intersections, revolutions, pictorial representation, perspectives, pictorial sketching, illustrations and axonometric drawing.

Credit: 4 semester-hours

SOPHOMORE YEAR

INDUSTRIAL ARTS 201A. Wood and Crafts, I

This is an introductory course in hand woodwork and simple crafts where skills, techniques, and procedures are acquired through actual participation in activities involving materials, tools and procedures. Emphases in the area of

wood are on lumber, hardware, glue jointery, tool operations, equipment, layout, and design. Areas in crafts include carving, plastics, candle making, keene cement, and the more common crafts.

Credit: 4 semester-hours

INDUSTRIAL ARTS 201B. Wood and Crafts, II

Advanced experience in wood and crafts provides for further development of basic skills and techniques that lead to further exploration and experimentation. The area of wood incorporates the hand tool processes, the preparation of wood for finishing, the study and use of stains, fillers, shellac, lacquer, varnishes, paints and solvents, compound finishes, French polish, and refinishing. Craft areas include copper foil, jewelry, tin craft, lapidary, etching, basketry, and chair caning.

Credit: 4 semester-hours

INDUSTRIAL ARTS 202A. Metals and Power, I

This course presents an introduction to the area of metal and power where basic fundamentals, procedures, and techniques are studied. The area of metal includes the design and development of projects in sheetmetal, art metal, spinning, and plating. Power incorporates the study of atomic structure, static electricity, circuits, power theory, wire sizes and resistance, temperature, coefficients, magnetism, electromotive forces, and meters and measurements.

Credit: 4 semester-hours

INDUSTRIAL ARTS 202B. Metals and Power, II

The second experience in metal and power enlarges on previously developed skills and techniques through further exploration and experimentation. The area of metal provides opportunity for wrought iron work, bench metal work, forging, annealing, and heat treating. Power includes the study of electrical development and transmission, AC-DC theory, motors and generators, household mechanical and appliance repairs, communications, radio, and television.

Credit: 4 semester-hours

JUNIOR YEAR

INDUSTRIAL ARTS 300A. Principles, Methods, and Curriculum in Industrial Arts, I

The development and expansion of industrial arts over the years points up many principles that exemplify its present philosophy. To understand these principles the industrial arts program in the modern school is approached through a study of the purposes of general education, industrial arts as general education, basic concepts of democracy, education as a meeting of needs, relationship of industrial arts to general education, industrial arts objectives, terminology, basic conclusion of program of industrial arts organization and shop management, and evaluation of programs.

INDUSTRIAL ARTS 300B. Principles, Methods, and Curriculum in Industrial Arts, II

An overview of accepted industrial arts curriculum and teaching practices which are in use in public schools constitutes the major area of this course. The various types of problems investigated include organization of the general shop, records, finance, distribution of supplies and equipment, operational responsibilities, safety, related information and guidance, industrial arts and public relations, testing and recording progress, industrial arts laboratory planning, industrial arts equipment selection, the teacher and his profession.

Credit: 2 semester-hours

INDUSTRIAL ARTS 301A. Wood and Crafts, III

The third experience in wood and crafts provides an opportunity for the student, who by now has acquired an adequate wood and crafts background, to undertake more advanced work. The wood area entails the study of safety, maintenance, and operation of all common woodworking machines, along with various types of project design and development. The crafts emphasize the importance of ceramics. The area includes the study of clay; making ceramic pieces by the pinch, coil, slab, throw, or cast method; glazing; and firing.

Credit: 4 semester-hours

INDUSTRIAL ARTS 301B. Wood and Crafts, IV

The fourth experience in wood and crafts provides for advanced work in these areas. The wood area entails work in safety, maintenance, and operation of common woodworking machines, cabinet making, furniture making, construction processes, mass production techniques, carpentry, and pattern making. The craft area includes weaving, upholstery, leather, fly tying, rope work and model building.

Credit: 4 semester-hours

INDUSTRIAL ARTS 302. Graphic Arts and Drawing, III

The third experience in graphic arts and drawing provides opportunity for exploring the more advanced areas in these fields. The graphic arts area includes photography, bookbinding, duplicating, rubber stamp, dry point etching, and silkscreening. The emphasis in drawing is placed upon schematic drawings, advanced design, working drawings, detailed drawings, architectural drawings, exploded view drawings, assembly drawings, and reproduction of drawings.

Credit: 4 semester-hours

SENIOR YEAR

INDUSTRIAL ARTS 402. Comprehensive General Shop

This course presents laboratory experience operated under the principles and philosophy of a general shop, with the possibility of utilizing all of the available

shop facilities. Each student has the opportunity to elect the areas of work he is interested in and to plan a general shop program accordingly.

Credit: 4 semester-hours

INDUSTRIAL ARTS 403. Metals and Power, III

The third experience in metal and power gives advanced work in these areas. The metal area includes activities in brazing, foundry, machine shop, low pressure welding, and mass production techniques. The power area involves experiences in auto mechanics, power mowers, outboard motors, diesels and other combustion engines, mechanical power, steam power, and hydraulics.

Credit: 4 semester-hours

ELECTIVES

INDUSTRIAL ARTS 442. Conservation of Basic Industrial Materials

In this course the students live for ten days at the New Jersey State School of Conservation, Stokes State Forest. Study is devoted to the origin, development, use, and consumption of the basic industrial materials as they exist in their natural state. The materials studied include wood, plastics, leather, ores, petroleum, textiles, and steel. The course material is developed through the use of (1) field trips to the natural sources of supply and basic industries, (2) films concerning the materials and their use in industry, and (3) discussion periods with the specialists of industry and government officials who are responsible for conserving and using these materials.

NOTE: The fee for this course is \$55.00 which includes tuition, board, lodging, transportation on field trips, and use of recreational facilities.

Credit: 2 semester-hours

INDUSTRIAL ARTS 443. The Use and Processing of Basic Industrial Materials by Modern Industry

In this course the students live for ten days at the New Jersey State School of Conservation, Stokes State Forest. Study is devoted to the recognition, use, and processing of the basic industrial materials as done by industrial concerns. The materials studied evolve around the use of ores, wood, fuels, and agricultural products as they are transformed or processed by industry in the making of additional semi-finished raw materials such as plastics, leather, pewter, textiles, ceramics, steel, and metal products. The course material is developed through the use of (1) field trips to the industries, (2) films and visual aids concerning the transformation of the basic materials by industry, and (3) discussion periods with specialists of the industry, government officials, and educators.

THE DEPARTMENT OF MATHEMATICS

Prospective teachers of secondary-school mathematics are selected with much care on the basis of personal interviews, written examinations, previous scholastic record, and recommendations from their respective high schools. Students thus selected can achieve a broad cultural background, a thorough understanding of their chosen field of work, and a good working knowledge of the problems, techniques, and methods of procedure in the teaching of mathematics in the modern secondary school.

Scholarship in mathematics can result only from continued study of mathematics; it cannot result from a mere review of high-school courses. Hence, the course of study in mathematics provides for a study of topics in college mathematics with continual emphasis on their use as a background for teaching. Courses have been selected to the end that the students become proficient in various fields of mathematics.

The training in mathematics in a teachers college should differ from that in a liberal arts college or in an engineering college in a number of ways. Since the student is preparing to teach mathematics to secondary-school pupils, he must not only understand the uses and limitations of formulas, but must also be able to derive them from simpler ideas; he must not only understand fundamental principles, but must also acquire the facility of making them clear to others, of searching out the obstacles that hinder another's understanding. He must not only have a mastery of the topics he is to teach, but must also see them as an integral part of the subject-matter of mathematics, and know the place of mathematics in the history of civilization and its uses in practical life.

The courses offered by the Department of Mathematics are taught with the following objectives in view:

- 1. To give the student a review of and practice in those topics in mathematics which he will be required to teach. This is best done by having such review an incidental part of the advanced work in mathematics rather than a repetition of high-school subject-matter.
- 2. To professionalize the course so that the student will be conscious of teaching problems and will have abundant practice in logical reasoning and in making lucid explanations.
- 3. To note that many phases of college mathematics are simply the extension or continuation of similar topics in high-school mathematics.
- 4. To give the student that self-confidence which is the concomitant of a broad knowledge of subject-matter beyond minimum requirements.
- 5. To supply a cultural background and an awareness of the specific contributions which mathematics has made to civilization.
- 6. To make the student aware, through observation and participation in teaching in the College High School, of the character and diversity of the problems arising in teaching mathematics to secondary-school pupils.
 - 7. To integrate the work with other courses, particularly science, social stu-

dies, and economics, so that the student will realize the effectiveness of mathematics as a tool in solving scientific and sociological problems.

No student should attempt to major in mathematics who has not demonstrated his ability by his high-school work in elementary and intermediate algebra and in plane geometry. The student who has also taken trigonometry and advanced algebra will be better prepared for work in the College.

Students who major in mathematics should consult with the Chairman of the Mathematics Department before selecting a field of minor interest.

The following course requirements constitute the mathematics major:

	Sen	ester-hours
Mathematics 101. Mathematics 201. Mathematics 202. Mathematics 302. Mathematics 302. Mathematics 401. Mathematics 402. Mathematics 404.	Mathematical Analysis, I Mathematical Analysis, II Calculus, I Calculus, II Modern College Geometry Higher Algebra The Teaching of Mathematics in Secondary Schools Applications of Mathematics Readings and Lectures in Mathematics	4 4 4 4 4 3 3 2
		33

Semester-hours

Mathematics 304 is required of students who have not had solid geometry in high school and is recommended as an elective for others.

Students who anticipate selecting mathematics as a field of minor interest should consult with the Chairman of the Mathematics Department before beginning such work. The following courses are recommended for all mathematics minors: MATHEMATICS 101, 102, 201, and 202. If solid geometry has not been studied in high school, MATHEMATICS 304 should also be taken.

All students in the College, except mathematics majors, are required to take MATHEMATICS 300 and 400. MATHEMATICS majors take MATHEMATICS 308 and 408 instead of MATHEMATICS 300 and 400.

THE FIRST YEAR

The mathematics of the first year is organized in one large unit of work. The traditional subjects of college algebra, trigonometry, and analytical geometry are not treated as separate and distinct subjects, resulting in artificial lines of demarcation in the mind of the student, but are interwoven, with some of the more elementary portions of calculus, into an integrated course in mathematical analysis. The central idea of the organization is the function concept. The locus concept serves as a secondary theme about which processes, inverse to those previously introduced, are organized.

^{*}Required of mathematics majors in lieu of Mathematics 300. *Required of mathematics majors in lieu of Mathematics 400.

Elementary mathematical analysis forms an essential part of the preparation for teaching high-school mathematics. Due attention is given to the professionalization of subject-matter by continued application of knowledge previously gained, by creating a desire for further investigation, by repeated application of the scientific method of thinking, by having the student make careful analyses and explanations, and by showing how certain phases of the work may be transferred to high-school situations. As an integral part of the students' training, this first year of mathematics serves three purposes: it forms a foundation for further work in mathematics; it forms a background course for the investigation of other sciences; and it gives knowledge and training, which can be used in the teaching of high-school mathematics.

Each student is required to make twenty observations in the College High School. Reports for these observations are required.

MATHEMATICS 101. Mathematical Analysis I

The principal topics are: Functions and graphs, linear functions, quadratic functions, polynominal functions, rational and irrational functions, rates of change, differentiation and integration of simple functions, logarithms and logarithmic functions, the theory and use of the slide rule, permutations, combinations and probability, sequences and series. This semester's work is closely correlated with and forms a review and extension of senior high-school mathematics.

Credit: 4 semester-hours

MATHEMATICS 102. Mathematical Analysis II

The chief topics considered are: trigonometric and circular functions, trigonometric formulas, the solution of triangles, inverse circular functions, natural logarithms, exponential and hyperbolic functions, simultaneous equations and determinants, the straight line, loci, the conic sections, polar coordinates, transformation of coordinates and the general second-degree equation in two variables, parametric equations, empirical equations, and an introduction to the analytic geometry of space.

Credit: 4 semester-hours

THE SECOND YEAR

A study of differential and integral calculus is made the second year. The entire year's work forms a unit sequential to that taken the first year. Professionalization is effected, as in the first year, by emphasis on participation in class discussions by the students with emphasis on clear and concise explanations. Students are required to report on thirty observations in the College High School.

MATHEMATICS 201. Calculus, I

A clear understanding of the meaning and uses of the derivative, as well as mechanical facility in the computation of the derivative of algebraic and trans-

cendental functions, are the main objectives of this course. Applications of the derivative are studied in determining the form and properties of curves in solving problems in maxima and minima, in finding roots of equations, in parametric and polar equations, in curvature and the radius and circle of curvature. Other topics are differentials, the theorem of mean value, and its applications.

Credit: 4 semester-hours

MATHEMATICS 202. Calculus, II

The use of integration as a process of summation is applied to elementary problems in finding areas enclosed by plane curves, volumes of solids of revolution, the length of a curve, and areas of surfaces of revolution in both rectangular and polar coordinates. Mechanical facility in integration is promoted by a study of the use of various devices in integration and by instruction in the use of tables of integrals. Other topics studied are centroids, fluid pressure, work, and series.

Credit: 4 semester-hours

THE THIRD YEAR

Modern College Geometry is required in the first semester. In this course the student learns more powerful methods and techniques for solving original exercises in geometry and gains experience in the construction of geometric proofs by analysis. In the second semester a course in Higher Algebra is required. This course provides the student with similar preparation and confidence for the teaching of algebra in the high school.

Professionalization during this year is emphasized by increased demands on the student in making lucid explanations, and in ability to anticipate difficulties in teaching procedures. He now begins to participate actively in the classes in the College High School as an assistant and is expected to help in diagnosing pupil difficulties and in providing remedial practice. At least forty observations are required as a part of Mathematics 308.

MATHEMATICS 300. The Social and Commercial Uses of Mathematics

For a description of this course, see page 49.

Credit: 2 semester-hours

MATHEMATICS 301. Modern College Geometry

This course gives the student a thorough preparation for teaching plane geometry. Effective methods of attack in solving problems are carefully analyzed and applied. An intensive, well-organized review of high-school geometry emphasizes ways of developing and teaching the more difficult material. This prepares the way for faster progress with new and advanced work, including the more recent developments in plane geometry. Throughout the course special effort is made to correlate the material studied with that of the high school. Representative topics are: the fundamental framework of plane geometry, loci and

geometric constructions; fundamental theorems of Ceva, Menelaus, Stewart, Euler, Ptolemy, etc.; homothetic figures, the harmonic range, noteworthy lines and points, systems of circles, and inversion.

Credit: 4 semester-hours

MATHEMATICS 302. Higher Algebra

Among the topics of advanced algebra studied in this course are: a systematic treatment of the foundations of algebra, the development of the number system, the properties of polynomials and methods of solving algebraic equations, the analytic criteria for the constructibility of geometric plane figures, graphs, applications of the calculus and determinants, and related problems in algebraic analysis. At every opportunity this material is correlated with the subject-matter of secondary school mathematics.

Credit: 4 semester-hours

MATHEMATICS 304. Solid Geometry

This course is required of those students majoring or minoring in mathematics who have not had solid geometry in high school, and is an elective for those who desire to review the subject from an advanced point of view. Besides the treatment of the usual theorems, the course emphasizes alternate methods of proof and the application of algebra, plane trigonometry, and elementary analysis to solid mensuration. Modification in teaching as suggested by recent commission reports is stressed.

Credit: 2 semester-hours

MATHEMATICS 308. The Teaching of Junior High School Mathematics

Most of the content of Mathematics 300 is covered in this course, but its chief function is to present those techniques and methods of procedure which can be used successfully in the teaching of junior high school mathematics. At least forty observations of classes in the junior high school with reports thereon are required in this course.

Credit: 2 semester-hours

THE FOURTH YEAR

In the fourth year the course in Applications of Mathematics gives the future teacher an effective background in the use of precision instruments. The course in the Teaching of Mathematics in Secondary Schools coordinates and brings to a focus all of the professionalization of his previous courses. Here his attention is concentrated solely on a careful study of the teaching of mathematics in secondary schools. He becomes acquainted with the literature of the teaching of mathematics and with discussions by leading teachers in mathematical periodicals. In supervised student-teaching the student puts into practice, under expert direction and supervision, in high-school classes, the theories and methods he has studied. Thus, we have the combination of sound scholarship in mathematics and an apprenticeship under successful high-school teachers.

MATHEMATICS 400. Educational Statistics

For a description of this course, see page 49.

Credit: 2 semester-hours

MATHEMATICS 401. The Teaching of Mathematics in Secondary Schools

The techniques of teaching different units of work in the secondary school are studied, and the application of these techniques in a demonstration class is observed by the student. Eventually, the student participates in organizing and preparing teaching material; in conducting class activities; in constructing, administering, and evaluating tests; in tutoring; and in other teaching activities.

Credit: 3 semester-hours

MATHEMATICS 401X. The Teaching of Mathematics in Secondary Schools

Various methods and techniques of teaching different units of work in secondary school mathematics are studied. Out of his own experience and that of others, the student is required to formulate and discuss effective teaching procedures. Units of work are discussed as to content, organization, presentation, teaching techniques, and evaluation of achievement. Criteria for the selection and use of modern texts and auxiliary teaching materials are included.

Credit: 2 semester-hours

MATHEMATICS 402. Applications of Mathematics

This course deals with the use of instruments in precision measurements to supply adequate information and teaching techniques for various phases of junior and senior high school mathematics. It includes the use of the abacus, the slide rule, hypsometer, transit, sextant, planimeter, plane table and scale drawing, etc. The student is required to make some of the simpler instruments and demonstrate their use for classroom instruction.

Credit: 3 semester-hours

MATHEMATICS 404. Readings and Lectures in Mathematics

Lectures are given upon advanced topics in mathematics and on those phases of mathematics which are finding new applications, especially as they are related to the secondary field. Besides a mastery of this lecture material, the student is held responsible for a written report on an approved topic or on specific readings in recent mathematical literature.

Credit: 2 semester-hours

MATHEMATICS 405. History of Mathematics

As a study of elementary mathematics emphasis is placed on the historical growth of arithmetic, algebra, and geometry. The development of fundamental concepts and operations involving the use of symbols is studied with emphasis placed upon noteworthy contributions and the influence of leading mathematicians.

A by-product is the motivating effect of historical information on the teaching and learning of mathematics.

Credit: 2 semester-hours

MATHEMATICS 406. Solid Analytic Geometry

A review and extension of the theory of determinants, a study of lines and planes in space, of space-coordinates, transformation of coordinates, loci in space, the sphere, and of quadric surfaces are considered in this course. The study of the general quadric equation in three variables, invariance under motion, and the classification of numerical equations completes the course.

Credit: 2 semester-hours

MATHEMATICS 407. Advanced Calculus

After a brief review of the fundamental concepts of elementary calculus, more advanced topics are considered which include the theory of limits, continuity, the general theorem of mean value, infinite series, partial differentiation, and multiple integrals.

Credit: 2 semester-hours

MATHEMATICS 408. An Introduction to Mathematical Statistics

This first course covers the usual topics in statistics, using calculus as a major tool in the derivation of formulas. Topics included are: types of data and types of measurement; attributes and variables; graphical representation; measures of central tendency and dispersion; moments; binomial, Poisson, and normal distributions; linear regression and correlation; elements of sampling theory and statistical inference. This course is required of mathematics majors in lieu of MATHEMATICS 400.

Credit: 3 semester-hours

MATHEMATICS 410. Mathematics of Finance

This course introduces the student to the elementary theory of simple and compound interest and leads to the solution of practical problems in annuities, sinking funds, amortization, depreciation, stocks and bonds, installment buying, and savings and loan associations. It also discusses the mathematics of life insurance covering the following subjects: the theory of probability as related to life insurance; the theory and calculation of mortality tables; various types of life annuities and insurance policies and reserves. This course is designed to give a helpful background to the mathematics teacher as well as to be an aid to the student of economics and insurance.

Credit: 2 semester-hours

MATHEMATICS 412. Modern Geometry

This course presents a treatment of modern synthetic geometry on an advanced level. It is based on a fundamental framework of plane geometry and maturity of

teaching in the field of mathematics. Topics treated are loci and geometric constructions; fundamental theorems of Ceva, Menelaus, Stewart, Euler, Ptolemy, etc.; homothetic figures, the harmonic range, noteworthy lines and points, systems of circles, and inversion.

This course is not open for credit to students who have received credit for MATHEMATICS 301.

Credit: 4 semester-hours

THE DEPARTMENT OF MUSIC

The Department of Music offers a threefold program:

- 1. A major in music education for students who wish to teach music in grades one through twelve.
- 2. A minor in music education for students who wish to teach music in combination with an academic subject in grades seven through twelve.
- 3. Music courses as cultural background for students who intend to teach academic subjects in the secondary schools.

The Music Major

The music major prepares the student to teach vocal and instrumental music, music appreciation, and music theory in the elementary and secondary school. The curriculum includes four areas of subject-matter: music history and appreciation, music theory, applied music, and music pedagogy. Students who wish to major in music are required to have a preliminary conference with the Head of the Music Department at which time they will discuss and demonstrate their qualifications for specialization in this field. Prospective music majors should have performance ability of promise on a primary and a secondary instrument, good musicality, a knowledge of elementary music theory, and give evidence of serious music study throughout the high-school years.

Instrumental primary students who desire to come to Montclair are urged to participate in choral organizations in high school; voice primary students are urged to study piano throughout the four years of high school.

The following course requirements constitute the music major:

 Music 101.
 Sight Reading and Ear Training
 2

 Music 102.
 Advanced Sight Reading and Ear Training
 2

 Music 103.
 Primary Instrument, Part I
 1

 Music 104.
 Primary Instrument, Part II
 1

 Music 105A.
 Secondary Instrument, Part II
 ½

 Music 105B.
 Secondary Instrument, Part II
 ½

 Music 201.
 Harmony
 4

 Music 202.
 Advanced Harmony
 4

 Music 203.
 Primary Instrument, Part III
 1

 Music 204.
 Primary Instrument, Part IV
 1

 Music 205.
 String Instruments
 1

 Music 206.
 Woodwind Instruments and Percussion
 1

 Music 207.
 Epochs in Musical Development, Part II
 2

 Music 208.
 Epochs in Musical Development, Part II
 2

Music	2104	Secondary Instrument, Part III	1.6
			72
			1/2
Music	301.	Choral Technique	2
Music	303.	Primary Instrument, Part V	2
Music	304.	Primary Instrument, Part VI	2
Music	305.	Orchestration	2
Music	306.	High-School Orchestras and Bands	2
Music	307.	Music Form and Analysis	2
Music	320.	Teaching Music in the Primary Grades, 1-3	3
Music	321.	Teaching Music in the Intermediate Grades, 4-6	3
Music	401.	The Teaching of Music in Secondary Schools	3
Music	402.	Primary Instrument, Part VII and Senior Recital	2
Music	406.	Epochs in Musical Development, Part III	2
Music	499A.	Problems in the Teaching of School Music	2

In addition to the above required courses, specialized interests are met through the choice of differentiated required music courses as follows:

Mu	sic 310A.	Secondary Instrument, Part V	
		or	1
Mu	sic 309.	Brasswind Instruments and Percussion	
Mu	sic 310B.	Secondary Instrument, Part VI	
		or	1
Mus	sic 308.	Voice for Instrumentalists	
Mu	sic 337.	The Opera	
		or	2
Mus	sic 338.	The Symphony	
Mu	sic 405.	Orchestra Conducting and Score Reading	
		or	2
		A Cappella Choir and Choral Conducting	
In a	addition fiv	ve-semester-hours in ensemble work are required for gradu-	
		najor in music.	
	emble		5
	Total		62

Primary voice students take three years of secondary piano. Because of lesser pianistic demands made of instrumentalists, primary wood and brass wind students are required to take only two semesters of secondary piano. These students take MUSIC 308, Voice for Instrumentalists, and MUSIC 309, Brasswind Instruments and Percussion, in lieu of the third year of piano. Primary piano students take the third year in the field of their secondary instrument.

In addition, music majors may choose electives in the field of advanced music theory and musicology.

Applied Music

Music majors will choose a primary and a secondary instrument in applied music, one of which shall be piano. Other primary instruments may be organ, voice, violin, or other band and orchestra instruments. The primary instrument represents the student's greatest talent and accomplishment; the secondary instrument, lesser talent and accomplishment. Every music major will give a graduation recital on his primary instrument in the senior year. Students receive a one-hour private lesson on the primary instrument and a half-hour private lesson (or equivalent class lesson) on the secondary instrument each week.

All music students will study with the applied music teachers provided by the College.

Entrance Requirements in Primary Instruments

1. Piano

a. Play from memory all major and harmonic minor scales, four octaves, hands together and I, IV, and V chords and inversions in each key.

b. A little prelude or two part invention by J. S. Bach.

c. An easy sonata by Haydn, Mozart, or Beethoven, played from memory. d. A composition by a Romantic or modern composer of the student's choice.

2. Voice

a. A good natural voice above the average in quality and range; good intonation and clear diction.

b. Two songs of the student's choice selected from standard voice repertory, such as a simple art song, an air from an oratorio, or an aria from an opera, one of which shall be sung in English.

c. A minimum of two years of piano study.

d. Knowledge of French or German is recommended.

3. Violin

a. Play from memory all major and melodic minor scales, three octaves.

b. An etude selected from Dont. Op. 37 or Kreutzer, Number 2-20, or equivalent.
 c. A first movement selected from the following concertos: Viotti, Numbers 22, 23; DeBeriot, Number 9; or Vivaldi, A minor; or two movements from a sonata by Handel, Corelli, or Tartini.

d. A composition chosen by the student from the classic repertory.

4. Clarinet

 a. Play from memory all major and melodic minor scales, three octaves, moderate tempo.

b. Completion of a substantial portion of one of the standard clarinet methods: Baermann, Lazerus, Langenous, Klose, or equivalent.

c. An etude chosen from Baermann, Bk. IV, characteristic studies, Klose, or equivalent.

d. A composition chosen by the student from the classic repertory.

5. Trumpet or Cornet

Play from memory without music, all major, and melodic minor scales, two
octaves where possible.

b. Completion of a substantial portion of Arban's Method for the Trumpet or equivalent.

c. An etude chosen from the Twelve Characteristic Etudes, Arban.

d. A composition chosen by the student from the classic repertory.

Entrance requirements for other primary instruments may be had upon request.

Entrance Requirements in Piano, Secondary Instrument

1. Evidence of the satisfactory completion of the following:

a. Ferdinand Beyer's Elementary Instruction Book.

- b. John Thompson's Modern Course for the Piano, First and Second Grade Books.
- 2. All major scales, sharps and flats, hands together, two octaves, played from memory.

- 3. Any two of the following compositions played from memory:
 - a. Minuet, G. Bach, Classic Albums. Book I, B. F. Wood Music Co.

b. Sonatina, C Major, Op. 36, No. 1, Clementi, first movement.

c. Melody, Schumann, Classic Albums, Book I.

Entrance requirements for other secondary instruments may be had upon request.

A student will be admitted with a condition in piano, secondary instrument, provided he has compensatory performance abilities on other instruments. A condition in secondary piano, however, must be removed during the first year. A student will not be permitted to enter the sophomore year until the condition has been removed. Instruction in sub-credit bearing piano will be taken at the student's expense.

All instruction in applied music required during the summer session will be taken at the student's expense.

Entrance Requirements for Student Teaching

Regardless of the primary or secondary instrument, all music students, both majors and minors, are required to meet the following minimum performance standards with an average grade of not less than C before they enter student teaching:

Give evidence of a working knowledge of practical keyboard harmony; ability to harmonize and transpose a simple melody; chord with primary chords in any key; and improvise basic rhythmic patterns.
 Sing and play five songs suitable for classroom use in the intermediate grades.

Sing and play five songs suitable for classroom use in the intermediate grades.
 Play singly and in combination the voice parts of a choral number suitable for use in the secondary school.

Read at sight an easy folk song with piano accompaniment.
 Read at sight with so-fa syllables a song of medium difficulty.

6. Play eight community songs, three of which shall be The Star-Spangled Banner, America, and America the Beautiful.

Music Scholarships

1. C.O.S. Howe Memorial Organ Scholarship

In 1939, Mrs. C.O.S. Howe gave the College a three-manual Austin pipe organ, a library of organ music, and a fund for a perpetual scholarship in organ in memory of her husband, the late Dr. C.O.S. Howe.

The C.O.S. Howe Memorial Organ Scholarship is awarded annually to a qualifying student. The requirements are:

a. At least one year's previous study on the pipe organ.

b. Sufficient pianistic skill, developed and maintained, to profit by specialized instruction on the pipe organ.

c. A knowledge of elementary music theory.

d. An active interest in choral music.

2. Passaic-Bergen Symphonic Society Scholarship

This scholarship in violin, viola, cello, oboe, bassoon, flute, or French horn is available to a student of Passaic or Bergen County, who has been active in a musical organization in high school.

Application for the above scholarships may be made to the Director of Student Personnel, State Teachers College, Upper Montclair, N. J.

Ensemble

Regardless of primary instrument all music majors will participate two years in choral organizations. Thereafter, they may elect membership in other organizations. However, credit will not be given for less than two consecutive semesters in any organization. Ensemble credit is not given for the freshman year. Thereafter, a maximum of five semester-hours may be so earned. Students may not participate in three organizations either with or without credit without securing special permission from the Head of the Music Department.

Recitals

Faculty recitals and Senior Graduation recitals are given on Sunday evening in Edward Russ and Chapin Halls. Student recitals are given bi-monthly on Friday afternoons. All music students are required to perform in recitals as directed by their applied music teachers and to attend at least two-thirds of these recitals.

The Music Minor

The music minor prepares the student to teach music in combination with academic subjects in the secondary school. The music minor is begun in the sophomore year and presupposes a major in an academic subject. English and social studies are the subjects most frequently combined with music.

Students who wish to minor in music should consult the Head of the Music Department early in the freshman year in order to make up any deficiencies. Music minors are required to meet a minimum standard in piano and to participate in one musical organization throughout the three years.

The following courses are required of all music minors: Music 101, 102, 201, 207, 208, 301, 306, and 401. Piano is required without credit.

Music for the General Student

The cultural obligation of the teacher has long been recognized. Teacher education has become increasingly a matter of providing rich cultural backgrounds upon which the teaching of a given subject may be projected. For this reason all students are required to take MUSIC 100, Music Appreciation. In addition, the general student may elect courses in music history and music theory in the junior and senior year. Whenever possible, the content of these courses is related to the student's major field.

All general students are given a music placement test. On the evidence of this test, they are advised to participate in the musical organizations of the College such as the *a cappella* choir, orchestra, band, music workshop, or Collegium Musicum.

THE FIRST YEAR

The student begins his career as a music major with a course in Music Appreciation. In addition, he takes Sight Reading and Ear Training, the primary and secondary instruments, and participates in the various musical organizations of the College.

MUSIC 100. Music Appreciation

For a description of this course, see page 47.

Credit: 1 semester-hour

MUSIC 101. Sight Reading and Ear Training

This course aims to develop basic skills in music reading. It includes notation and terminology, major and minor scales, intervals, triads, ear and eye recognition of commonly used tonal and rhythmic groups, and written dictation of a standard repertory of thematic materials. This course meets three hours weekly and is credited on a laboratory basis.

Credit: 2 semester-hours

MUSIC 102. Advanced Sight Reading and Ear Training

This course is a continuation of MUSIC 101. It includes a study of the more difficult tonal and rhythmic groups, reading parts in various clefs, harmonic eartraining, and dictation. The subject-matter is taught through standard song literature, including folk and art song, choral and oratorio. This course meets three hours weekly and is credited on a laboratory basis.

Prerequisite: MUSIC 101

Credit: 2 semester-hours

MUSIC 103. Primary Instrument, Part I

Credit: 1 semester-hour

MUSIC 104. Primary Instrument, Part II

Credit: 1 semester-hour

MUSIC 105A. Secondary Instrument, Part I

Credit: 1/2 semester-hour

MUSIC 105B. Secondary Instrument, Part II

Credit: 1/2 semester-hour

MUSIC 130A and B. A Cappella Choir

MUSIC 131A and B. Orchestra

MUSIC 132A and B. Band

The student selects two of the above organizations. Each organization meets two hours weekly.

THE SECOND YEAR

In the second year the music major continues work on the primary and secondary instruments, takes Harmony and Epochs in Musical Development, and begins the study of orchestra and band instruments.

MUSIC 201. Harmony

This course aims to give a practical treatment of harmony as related to the classroom. It includes a study of rhythms, intervals, primary and secondary triads, seventh chords, inversions, diatonic and chromatic progressions. Special attention is given to the functional aspects of harmony as applied to the piano keyboard in the harmonization of melodies, transposition, and improvisation of accompaniments.

Prerequisite: MUSIC 102

Credit: 4 semester-hours

MUSIC 202. Advanced Harmony

This course is a continuation of MUSIC 201. It includes a study of foreign chords, altered chords, modulation, enharmonic tones, and the rhythmic and harmonic principles of musical form. Application is made in four-part writing, in harmonic analysis and on the piano keyboard.

Prerequisite: MUSIC 201

Credit: 4 semester-hours

MUSIC 203. Primary Instrument, Part III

This course is a continuation of MUSIC 104.

Credit: 1 semester-hour

MUSIC 204. Primary Instrument, Part IV

Credit: 1 semester-hour

MUSIC 205. String Instruments

This course develops elementary playing skills on violin, viola, cello, and string bass. The materials and procedures used are those recommended in the teaching of these instruments in the classroom. This course meets two hours weekly and is credited on a laboratory basis.

Prerequisite: MUSIC 102

Credit: 1 semester-hour

MUSIC 206. Woodwind Instruments and Percussion

This course develops elementary playing skills on flute, oboe, clarinet, and other woodwind instruments. It includes techniques on the snare drum. The materials and procedures used are those recommended in the teaching of these

instruments in the classroom. This course meets two hours weekly and is credited on a laboratory basis.

Prerequisite: MUSIC 102

Credit: 1 semester-hour

MUSIC 207. Epochs in Musical Development, Part I

This course makes a study of the medieval and polyphonic epochs in musical development. It deals with music in Greek culture, music of the early Christian Church, secular music makers of the Middle Ages, music of the Renaissance, the rise of instrumental music, and the growth of choral polyphony culminating in the works of Bach and Handel. Students make a chronological chart showing parallel developments in music, art, literature, and history.

Credit: 2 semester-hours

MUSIC 208. Epochs in Musical Development, Part II

This is a continuation of MUSIC 207, and makes a study of the classic and early romantic epochs in musical development. It includes study of the music of Haydn, Mozart, Beethoven, Schubert, Schumann, Brahms, Berlioz, and Liszt. This course is professionalized for use in teaching music appreciation in the classroom.

Prerequisite: MUSIC 207

Credit: 2 semester-hours

MUSIC 210A. Secondary Instrument, Part III

This is a continuation of MUSIC 105B.

Credit: 1/2 semester-hour

MUSIC 210B. Secondary Instrument, Part IV

Credit: 1/2 semester-hour

Music 230A and B. A Cappella Choir

MUSIC 231A and B. Orchestra

MUSIC 232A and B. Band

MUSIC 233A and B. Music Workshop

MUSIC 234A and B. Collegium Musicum

The student selects two of the above organizations. Each organization meets two hours weekly and is credited on a laboratory basis.

Credit: 1/2 semester-hour each

THE THIRD YEAR

The first two years of the music major curriculum have been devoted primarily to developing skills in applied music and to pursuing sequential courses in music theory and history. In the third year the skills and knowledge thus gained are applied in professionalized subject-matter courses in choral and instrumental school music.

MUSIC 301. Choral Technique

This course aims to develop the voice of the student through the singing of choral material suitable for use in the high school. It includes a study of the principles of tone production, diction, phrasing, and interpretation, illustrations of which are made in graded song materials for various vocal combinations. Special attention is given to testing and classification of voices, balance of parts, rehearsal routine, accompaniment playing, and conducting. This course includes observation and participation in the College High School Chorus.

Prerequisite: MUSIC 202

Credit: 2 semester-hours

MUSIC 303. Primary Instrument, Part V

This course is a continuation of MUSIC 204.

Credit: 2 semester-hours

MUSIC 304. Primary Instrument, Part VI

Credit: 2 semester-hours

MUSIC 305. Orchestration

This course makes a study of the range, tuning, transposition, and use of all instruments in the orchestra and band. It includes practical arranging for various combinations of instruments and the completion of a full score for band or orchestra. Special attention is given to the playing and transposition of parts at the keyboard.

This course includes observation in the College Orchestra and the College Band.

Prerequisite: MUSIC 206

Credit: 2 semester-hours

MUSIC 306. High-School Orchestras and Bands

This course deals with the organization of high-school orchestras and bands, selection, purchase and care of instruments, evaluation of teaching materials, techniques of class instruction, substitution of parts, elementary conducting rehearsal routine, marching band, and twirling. Students learn a repertory of music suitable for use in high-school orchestras and bands. This course includes observation and participation in the College High School orchestra.

Prerequisites: MUSIC 205, 206

MUSIC 129

MUSIC 307. Music Form and Analysis

This course provides application of all branches of music, theory, history, and performance in the analysis of vocal and instrumental forms. It includes a study of two and three part song forms, the dance suite, rondo, variation, and sonata. The materials used in this course are selected with reference to further use in the teaching of music appreciation in the classroom.

Prerequisite: MUSIC 202

Credit: 2 semester-hours

MUSIC 308. Voice for Instrumentalists

This course is conducted as a laboratory class to provide instrumentalists with basic voice training. It is concerned primarily with the development of the individual voice and includes a study of the principles of tone production, breathing, diction, phrasing, and interpretation. The song material and teaching procedure used in this course are those recommended in the teaching of voice class in the senior high school. This course meets two hours weekly and is credited on a laboratory basis.

Prerequisite: MUSIC 202

Credit: 1 semester-hour

MUSIC 309. Brasswind Instruments and Percussion

This course develops elementary playing skills on trumpet, horn, trombone, and other brasswind instruments. It includes techniques on bass drum, tympani, cymbals, and bells. The materials and procedures used are those recommended in the teaching of these instruments in the classroom. This course meets two hours weekly and is credited on a laboratory basis.

Prerequisite: MUSIC 206

Credit: 1 semester-hour

MUSIC 310A. Secondary Instrument, Part V

This is a continuation of MUSIC 210B.

Credit:1 semester-hour

MUSIC 310B. Secondary Instrument, Part VI

Credit: 1 semester-hour

MUSIC 320. Teaching Music in the Primary Grades, 1-3

This course deals with the principles, materials, and methods used in teaching music in the primary grades. It provides an integrated program of child voice and song repertory; remedial aids for non-singers, rhythms, dramatic play, and creative expression; discriminating listening; the development of reading readiness; the use of rhythm, melody, and harmony instruments. Emphasis is given to the contribution of music to the social adjustment of children. This course includes observation and participation in the primary grades.

MUSIC 321. Teaching Music in the Intermediate Grades, 4-6

This course deals with the principles, materials, and methods used in teaching music in the intermediate grades. It continues those musical activities begun in the primary grades and introduces music reading, part singing, the changing voice, and the integration of music with other subjects in the curriculum. Special attention is given to the beginning choral and instrumental program and the interrelation of these two areas of musical experience. This course includes observation and participation in the intermediate grades.

Prerequisite: MUSIC 320

Credit: 3 semester-hours

MUSIC 330A and B. A Cappella Choir

MUSIC 331A and B. Orchestra

MUSIC 332A and B. Band

MUSIC 333A and B. Music Workshop

MUSIC 334A and B. Collegium Musicum

The student selects two of the above organizations. Each organization meets two hours weekly and is credited on a laboratory basis.

Credit: ½ semester-hour each

MUSIC 337. The Opera

This course makes a study of representative Italian, French, and German operas. It includes a class analysis of each opera and the illustration of its principal numbers by means of recorded music and the piano. Special attention is given to those operas presented in the junior performances at the Metropolitan Opera, New York City.

Credit: 2 semester-hours

MUSIC 338. The Symphony

This course makes a study of representative symphonies, orchestral suites, overtures and tone poems by classic, romantic, and modern composers. Musical illustrations are given by means of recorded music and the piano. The content of this course is related to the Youth Concerts at Carnegie Hall, New York City.

Credit: 2 semester-hours

THE FOURTH YEAR

In the first semester of the fourth year the student gives his graduation recital in his primary instrument, and completes the required courses in music history, theory, and pedagogy prior to entering student teaching. The first twelve weeks of the second semester are spent in teaching music in the elementary and secondary school. Upon return to the campus, the student carries his professional preparation still further in the Problems in the Teaching of School Music which affords an opportunity to deal with problems which arise in student teaching.

MUSIC 401. The Teaching of Music in Secondary Schools

This course deals with the aims, content, and procedure in the teaching of music in the junior and senior high schools.

It includes a study of general and elective music courses, extra-curricular music activities, and music for special programs. Attention is given to the coordination of the choral and instrumental program with music appreciation and music theory. Lesson plans and units of work are prepared for use in the classroom.

This course includes observation and participation in the College High School.

Prerequisite: MUSIC 321

Credit: 3 semester-hours

MUSIC 402. Primary Instrument, Part VII and Senior Recital

This course is a continuation of MUSIC 304.

Credit: 2 semester-hours

MUSIC 405. Orchestra Conducting and Score Reading

This course aims to develop skills in orchestra conducting and score reading. It includes a study of the particular type of ear training needed in conducting, the technique of the baton, score reading, and interpretation. A special feature of this course is the presentation of a large amount of musical examples taken from standard repertory which contain practically all technical and psychological problems which face the conductor. Practical experience in conducting is given in the College High School Orchestra and the College Orchestra.

Prerequisite: MUSIC 305

Credit: 2 semester-hours

MUSIC 406. Epochs in Musical Development, Part III

This course is a continuation of MUSIC 208 and makes a study of the late romantic period and the rise of modern music. It includes a study of the music of Richard Strauss, Bruckner, Prokofieff, Mahler, Debussy, Tschaikowsky, Mussorgsky, Stravinsky, Schoenberg, Bartok, and Hindemith.

This course is professionalized for use in the teaching of music appreciation in the classroom.

MUSIC 407. The Development of the Opera

This course deals with the origin, development, and characteristics of opera in the Italian, French, German, and Russian schools. Class analyses are made of representative operas of these schools. The content of this course is related to the Saturday afternoon broadcasts from the Metropolitan Opera, New York City. Special attention is given to building an ear repertory of operatic music heard over the radio.

Credit: 2 semester-hours

MUSIC 408. Wagner Music Dramas

This course deals with the operas and music dramas of Richard Wagner. It includes a study of Wagner's artistic ideals and their application to his compositions. Special attention is given to those works which have their sources in great literature, as the Ring of the Nibelung, Parsifal, and Tristan and Isolde. This course carries field work at the Metropolitan Opera, New York City.

Credit: 2 semester-hours

MUSIC 409. Counterpoint

This course aims to provide a practical treatment of counterpoint for music students. It includes analysis of the works of the Sixteenth Century masters of vocal polyphony with enough of original work to insure a grasp of the principles involved. Functional aspects are stressed in the writing of inner voice parts, descant, round, and canon.

Prerequisite: MUSIC 202

Credit: 2 semester-hours

MUSIC 410. Composition

This course aims to develop the creative power of the student in the composition of small vocal and instrumental forms. Special attention is given to the functional aspects of composition in word setting, writing accompaniments, and improvisation. Selected compositions are performed in concert at the close of the course.

Prerequisite: MUSIC 202

Credit: 2 semester-hours

MUSIC 413. Masters of the Symphony

This course aims to provide the student with an understanding and appreciation of the classic and romantic symphony through the study of the symphonies of Haydn, Mozart, Beethoven, Schubert, Schumann, and Brahms. The content of this course is related to the weekly broadcasts of the Philharmonic Symphony Orchestra of New York.

MUSIC 414. Modern Symphonic Forms

This includes a study of the post-romantic symphonies of Bruckner, Mahler, Dvorak, Franck, Tschaikowsky, and Sibelius; the symphonic poems of Strauss, Smetana, and Debussy; and the orchestral suites of Rimsky-Korsakoff, Ravel, and Stravinsky. Special attention is given to building an ear repertory of symphonic music heard over the radio.

Credit: 2 semester-hours

MUSIC 416. Music in Modern Society

This course aims to interpret the nature, function, and forms of music in modern society in terms of the social, political, and cultural forces which have shaped it. It includes a study of the music of the church, royal patrons of music, nationalism in music, music and politics, music and industry, and music and entertainment. Because of the social interpretation given music, this course is particularly recommended to majors in the social studies.

Credit: 2 semester-hours

MUSIC 418. Music of Russia

This course provides a survey of Russian music from the Czarist regime to the modern Soviet. It aims to interpret Russian music in terms of the social, political, and cultural forces which have shaped it.

Credit: 2 semester-hours

Music 420. The Art Song

This course provides a survey of the art song and includes a detailed study of the art songs of Beethoven, Schubert, Schumann, Brahms, Wolf, and Strauss. Special attention is given to the relation of music and poetry. A feature of this course is the performance of art songs by guests of the class and attendance at art-song recitals in New York City.

Credit: 2 semester-hours

MUSIC 422. Chamber Music

This course provides a survey of chamber music and includes a detailed study of the string trio, quartet, and quintet by classic, romantic, and modern composers. The content of this course is related to the Sunday afternoon broadcasts of the New Friends of Music and Frick Art Museum concerts in New York City.

Credit: 2 semester-hours

MUSIC 423. Choral Masterworks

This course provides a survey of choral masterworks from Palestrina to Stravinsky. It includes a detailed study of Bach's B Minor Mass, St. Matthew Passion, Handel's Messiah, Beethoven's Missa Solemnis, Mendelssohn's Elijah, Verdi's Requiem, and other great choral works. The content of this course is related to the current musical season in New York City.

MUSIC 424. A Survey of Wind Instrument Music

This course includes music for full band, small ensembles, and solos with emphasis on literature available for brass and woodwind players in high school. A laboratory band as well as numerous small ensemble groups are formed by members of the class so that performance of all music under consideration is possible. Special attention is given the music originally composed for wind instruments. New music from all publishers is available for examination and evaluation.

Credit: 4 semester-hours

MUSIC 425. Music of the Romantic Period

This course deals with the romantic spirit in music as expressed in the works of Schubert, Schumann, Mendelssohn, Chopin, Berlioz, Liszt, and others. It includes a study of program music, piano and song literature and the rise of national schools of musical composition. Representative works are studied through performance recordings, and radio listening. Special attention is given to parallel aspects of Romanticism in literature and the visual arts.

Credit: 2 semester-hours

MUSIC 426. Survey of Music Literature

This is a survey course in music literature and includes a study of folk song, art song, oratorio, opera, idealized dance forms, instrumental suite, sonata, symphony and symphonic poem. Abundant use of musical illustration, directed listening, and music making acquaint the student with great masterpieces of music which should be the possession of every generally cultured person. This course is designed for the general student and aims to make intelligent and appreciative consumers of music. It is a non-technical course and attempts to make intelligent and appreciative radio-listeners and concert goers. Special attention is given to the relation of music to English literature and the social studies.

Credit: 2 semester-hours

MUSIC 428. Music of Twelve Great Nations

This course aims to increase understanding among people through a study of the folk and related art music of twelve great nations. Special attention is given to the social, economic, political, and cultural backgrounds of the music of these nations. Because of the social implications of this music this course is recommended particularly to teachers of the social studies. Musical illustrations are given at the piano, through group singing, and through recordings.

Credit: 2 semester-hours

MUSIC 429. A Cappella Choir and Choral Conducting

This course deals with the theory and practice of the a cappella choir. It includes a study of the principles of group tone production, phonetics as related

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to singing, tuning, posture, techniques of choral conducting, interpretation, and score reading. A feature of this course is the study of a selected list of choral literature suitable for use in school, church, and community. Outstanding students are given an opportunity to conduct the College *A Cappella* Choir.

Prerequisite: MUSIC 301

Credit: 2 semester-hours

MUSIC 430A. A Cappella Choir

MUSIC 431A. Orchestra

MUSIC 432A. Band

MUSIC 433A. Music Workshop

MUSIC 434A. Collegium Musicum

The student selects two of the above organizations. Each organization meets two hours weekly and is credited on a laboratory basis.

Credit: 1/2 semester-hours each

MUSIC 460. Musical Studies in Europe

This field-study course gives an opportunity to study by direct observation major European musical events of the summer season together with visits to famous places in the history of music. Beginning on July 2nd the tour extends to September 3rd covering the countries of France, Germany, Austria, Switzerland, the Netherlands, and Italy. Among many other things opportunities are provided to attend the Richard Wagner Festival in Bayreuth and the Salzburg Musical Festival and to visit the musical shrines and museums in Vienna and the LaScala Opera House and museum in Milan. Famous places such as London, Paris, Rome, Florence, Venice, Amsterdam, Frankfurt, Stuttgart, and Lucerne are included in the itinerary. Students who are registered for credit are required to present a written report at the end of the trip.

Credit: 6 semester-hours

MUSIC 499A. Problems in the Teaching of School Music

This is a post-student teaching course. It aims to (1) evaluate student-teaching experiences; (2) give an opportunity to the student to share with his classmates the problems encountered in student teaching and to seek a possible solution for the same; (3) meet shortages in teacher preparation not provided for in previous courses; (4) give the student a unified view of school-music education before he enters the teaching field. The content of this course is determined largely by the expressed needs of the students.

MUSIC 499B. Workshop in School Music

This course is designed primarily for music teachers-in-service who wish to work out projects for use in their respective schools. The content of this course is determined by needs in the field. It may include folk-song dramatizations, small vocal and instrumental ensembles, the integration of music with other subjects in the curriculum, music for boys, visual aids in music pageants, festivals, and materials for special programs. This course provides the teacher with a number of units of work suitable for classroom use.

Credit: 2 semester-hours

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THE DEPARTMENT OF SCIENCE

Students who are interested in preparing themselves to teach science in high school should consider carefully the present-day requirements for this kind of work. As a result of careful investigations we have extensive information concerning the activities of science teachers in secondary schools. It is not wise for a student to take work in one science only since full-time teaching positions in a single subject are seldom open to a first-year teacher. Most beginners teach two or more science subjects and often a non-science subject as part of the instructional load. It is, therefore, required that a student major in one branch of science and minor in another.

Since it is found by careful investigation that mathematics appears more frequently than any other subject in the combinations of subjects taught by science teachers, students specializing in science should plan to include as many mathematics courses as possible in the undergraduate program.

The following course requirements constitute the science major:

The following co	disc requirements constitute the science major.	
	S	emester-hour
Biology 101.	General Botany, Part I	4
Biology 102.	General Botany, Part II	
Biology 201.	General Zoology, Part I	4
Biology 202.	General Zoology, Part II.	
Biology 203.	Introduction to Field Biology	2
Chemistry 101.	General College Chemistry, Part I	
Chemistry 102.	General College Chemistry, Part II	
Chemistry 405.	Organic Chemistry, Part I	
Chemistry 406.	Organic Chemistry, Part II	
either Biology 402.	Mammalian Anatomy and Histology	
and Biology 409.	Human Physiology	4
or Chemistry 202.	Analytical Chemistry: Quantitative Analysis	
and Chemistry 203.	Analytical Chemistry: Applied Quantitative Analysis	
Physics 101.	General College Physics, Part I	4
Physics 102.	General College Physics, Part II	4
Physics 402.	Advanced Electricity	4
Science 401.	The Teaching of Science in Secondary Schools	4 4 3
Science 404.	Problems in the Teaching of Science	2
		_
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In addition to the course requirements for the science major as listed above science majors are required to take the following course:

^{*}Required of science majors in lieu of Science 100A.

Students who major in another department and minor in a science field secure approval of the minor program by consultation with the Chairman of the Science Department.

In addition to the minimum program as outlined above the science majors have a regular program of visits to the high-school science courses in the College High School as follows:

Freshman Year One visit each week during the school year in junior-high-

school science classes

Sophomore Year One visit each week in the high-school biology course

Junior Year One visit each week in either chemistry or physics classes

Senior Year In the fall semester seniors pursue three high-school observations by special assignments in the six-year science program.

THE FIRST YEAR

The first year is planned to give the student an insight into the role that science has played and is still playing in the drama of life. Specialization during this year begins with work in biology.

MATHEMATICS 101. Mathematical Analysis

For a description of this course, see page 115.

Credit: 4 semester-hours

SCIENCE 100C. The Earth Sciences

For a description of this course, see page 48.

Credit: 2 semester-hours

BIOLOGY 101 and 102. General Botany (Morphology and Physiology of Flowering and Non-Flowering Plants)

This course acquaints the student with the methods and tools of science and develops an understanding of the importance of plants to mankind. Morphology and physiology of the cell and of the plant as a whole are considered first. A survey of the plant kingdom with emphasis on structural development and economic importance follows in the second semester.

Credit: 4 semester-hours each

Science Course for Home Economics Majors

CHEMISTRY 103 and 104. Chemistry for Home Economics

This course provides an opportunity for students of home economics to become acquainted with the major principles of chemistry and their applications in the field of home economics. The content of the first semester is selected from inorganic chemistry. The work of the second semester deals with topics from the fields

of organic and biochemistry. The laboratory, reference work, and field trips attempt to show the importance of the contributions of chemistry to the field of home economics.

Credit: 4 semester-hours each

THE SECOND YEAR

The science work in this year is planned for both students majoring in the department and for those minoring in the department. Those minoring in the department are advised to take BIOLOGY 101 and 102, or CHEMISTRY 101 and 102, or PHYSICS 101 and 102.

BIOLOGY 201 and 202. General Zoology (Biology of Invertebrates and Vertebrates)

The course in general zoology is designed to give students a broad understanding of the important facts regarding animal life that should be of interest to them and to those whom they are to instruct. Students are taught the peculiarities of structure and physiology of different animal types, and this knowledge is employed as a working basis for deductions made regarding the taxonomy, the economic importance, and the probable course of evolution of the many diverse forms. Particular emphasis is given to the problems connected with man's relations to his environment.

Credit: 4 semester-hours each

CHEMISTRY 101 and 102. General College Chemistry

The course provides opportunity for mastering the fundamentals of chemistry, for understanding the numerous and far-reaching effects of contributions of chemistry to modern living, for training in scientific method, for developing facility in taking and utilizing laboratory notes, and for learning to use standard reference books. The laboratory contains many experiments of value for demonstration in high-school chemistry. A major portion of the second semester's laboratory work is qualitative analysis. Accompanying such laboratory assignments are supplementary questions requiring reading of library reference books in chemistry.

Credit: 4 semester-hours each

BIOLOGY 203. Introduction to Field Biology

In this required course, the students live for ten days at the New Jersey State School of Conservation in the Stokes State Forest where they have the outdoors as their laboratory. Field trips are made to various types of habitats in order to acquire an understanding of the meaning and significance of a "balanced outdoor society." What occurs when this "balance" is disturbed is observed, and methods of and reasons for it are discussed. Taxonomy, ecology, and conservation are stressed during this concentrated period of outdoor living.

Science Courses for Home Economics Majors

BIOLOGY 209. Human Biology

The course is designed for home economics majors. Bodily structure, functioning of parts, how that functioning affects human behavior are all considered. Primary emphasis is placed upon physiology rather than morphology and upon the maintenance of good health of the individual and of the community.

Credit: 3 semester-hours

BIOLOGY 210. Elementary Bacteriology

Since the course is designed for the home economics student, it is concerned primarily with these bacteria and fungi associated with food and nutrition, sanitation, hygiene, industry, and disease. Identification of the organisms, their economic importance, and their control are emphasized.

Credit: 4 semester-hours

THE THIRD YEAR

The work in the third year is planned for those who major or minor in science and for those who wish to choose electives in the field of science.

CHEMISTRY 405. Organic Chemistry

The course covers the chemistry of carbon compounds and gives increased facility and experience in manipulating complicated chemical apparatus. It treats of the role of chemistry in life processes, including the synthesis and adaptation of carbon compounds in industry, in medicine, and in daily living. The first semester's work covers the chemistry of simple chain compounds and includes fats and carbohydrates.

Credit: 4 semester-hours

CHEMISTRY 406. Organic Chemistry

The work of this semester covers the chemistry of multiple functional chain compounds, the ring compounds, proteins, vitamins, hormones and the application of these compounds in industry, in foods, and in medicine.

Credit: 4 semester-hours

PHYSICS 101 and 102. General College Physics

A study of mechanics of fluids and solids, properties of matter, and heat energy is followed in the second semester by a consideration of sound, theories of light, and electricity and magnetism. The course consists of demonstrations, lectures, discussions, problem-solving, and laboratory experiments.

Credit: 4 semester-hours each

Science Course for Home Economics Majors

PHYSICS 306. Household Physics

This course covers the following subdivisions of general physics: mechanics, heat, electricity and magnetism, sound, and light. The emphasis throughout is on the applications to equipment used in the home. The course consists of demonstrations, lectures, discussions, problem-solving, and laboratory experiments.

Credit: 4 semester-hours

THE FOURTH YEAR

All students majoring in the department are required to take SCIENCE 401, The Teaching of Science in Secondary Schools. This course, together with an increased amount of observation and participation in the College High School and with courses in the Integration Department, serves as a means of coordinating the entire work of the department and of preparing the student for the work in supervised teaching he is to do in the succeeding semester. The staff members of the department cooperate with the Integration Department in supervising this work.

SCIENCE 401. The Teaching of Science in Secondary Schools

The chief purposes of this course are: to review the educational objectives of science in public schools; to consider a program of instruction planned for all grades of the public-school system; to study the chief aids to instruction such as texts, manuals, workbooks, tests, and materials for the enrichment of teaching; to make a critical review of standards of classroom and laboratory instruction; to observe junior-high-school classes at work in science; and to participate in classroom activities in biology, chemistry, and physics prior to student-teaching. This course is required of all science majors.

Credit: 3 semester-hours

PHYSICS 402. Advanced Electricity

The most important aims and purposes of the course are as follows: (1) to provide a substantial background of training in the fundamental laws and principles governing the generation and use of electricity; (2) to develop skill in manipulating laboratory and demonstration apparatus; and (3) to learn the basic principles of alternating current circuits.

This course consists of lectures, demonstrations, reference readings, written and oral reports, laboratory experiments with modern electrical instruments, and construction of simple electrical devices. Some of the topics studied are: modern concepts of the electronic structure of matter, electric forces, magnetic fields, potential, resistance, impedance, capacitance, and characteristics of thermionic vacuum tubes.

Prerequisites: PHYSICS 101 and 102

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SCIENCE 404. Problems in the Teaching of Science

When a student has completed the assignment in student-teaching in a public high school in the State of New Jersey and has accumulated some experience with the problems of high-school science instruction, he returns to the college campus for an intensive study of a limited number of problems in a single field of science. The student concentrates his attention on general science, biology, chemistry, or physics for this period. This course is mainly a study of the published investigations dealing with curriculum construction, evaluation of current practices in junior and senior high-school courses, and the psychology of learning in science.

Credit: 2 semester-hours

ELECTIVES

SCIENCE 401D. The Teaching of Aviation in Secondary Schools

This course covers the study of state aviation programs, texts, bulletins, free material for school use, demonstration equipment, tests, working models, visual aids, and references needed to teach aerodynamics, aircraft engines, meteorology, navigation, and aircraft communication in high schools. Field trips to airports and aviation industries are included.

Credit: 2 semester-hours

SCIENCE 405. Field and Laboratory Studies in Science

This integrated course is designed to show the relationship in the geological rock formations, the types of soil, water patterns, plant communities, and animal inhabitants in northern New Jersey, and the effects on human occupations. The field trips are for the purpose of gathering data and materials for intensive work in the laboratory. The experiments are designed to give the student acquaintance with the science of common but possibly unstudied features of the landscape; e. g., soils are reproduced in profile and examined microscopically, physically, and chemically; water from a variety of sources is tested for biological and chemical impurities; the census of plant and animal inhabitants of typical areas is associated with relevant factors in the environment. Discussions precede and follow the field and laboratory work to establish the probable history of the area and to suggest the probable trend, whether advancing or retrogressing, of its development. Stress is placed on the kinds of human control in specific communities which would best serve their progress.

Students are asked to submit an analysis of the geological and biological features of some known community, based on the skills and principles learned. Some other objectives of the course include an understanding of the organization of school museums for learning purposes, the making of ecological maps and illustrating them with photographs and diagrams, and the techniques of ecological field trips. Two instructors, a chemist and a biologist, collaborate in giving this course.

Prerequisite: Proficiency in biology and chemistry

SCIENCE 410. Junior-High-School Science Demonstrations

This course covers the methods of experimental instruction in grades seven, eight, and nine. A detailed study is made of about three hundred demonstrations.

Credit: 4 semester-hours

SCIENCE 411. Problems in Field Studies in Science

In this course each student selects a phase of field science in which he does advanced research under the guidance of the instructor. Plant ecology, bird-life, pond life, fungi, tree diseases, and insect life are a few of the areas from which the student may choose.

Prerequisites: Field Studies in Science or its equivalent plus at least 12 points of biology

Credit: 2 semester-hours

SCIENCE 412. Field Studies in Science: Biological

Extensive instruction in the identification and natural history of fauna and flora is given in this course. Students examine the ecology of plant and animal communities (terrestrial and aquatic) and relate such communities with man's use of natural resources. The relation of field activities to present school curricula is considered. No previous science courses are required.

Credit: 2 semester-hours

SCIENCE 413. Field Studies in Science: Physical

Emphasis in this course is given to local and New Jersey geology, minerals, soils, and waters, with emphasis on the chemical and physical aspects of soil and water. Field trips are taken through the Kittatinny Mountains and to the Delaware Water Gap.

Credit: 2 semester-hours

SCIENCE 414. Conservation of Plants and Animals

The social, economic, and ecological implications of plant and animal conservation are considered together in this course. Discussion periods are interspersed with field trips to forest and wildlife management areas. Cooperating experts from state and federal agencies bring special contributions in their fields. Visual aids are used extensively.

Credit: 2 semester-hours

SCIENCE 415. Conservation of Soil and Water

The social, economic, and ecological implications of soil and water conservation are considered together in this course. Discussion periods are interspersed with field trips to selected areas. Outside experts bring special contributions in their fields. Visual aids are used extensively.

SCIENCE 418. Three Centuries of Science Progress

This course includes a study of fundamental world changes that have resulted in the past three hundred years from scientific discoveries. Topics considered are the following: a background of the beliefs and practices of the age; the processes of thought which produced skepticism; the experiments devised to disprove ruling opinions; the new concepts arising from fresh evidence; and the social, economic, and philosophic adjustments following the discoveries. Stress is given to the nature of scientific inquiry, its cumulative nature, its desire for freedom, and how to judge the probable fruitfulness of a research problem. The role which the man of science occupies in the world today is contrasted with his counterpart in earlier centuries. Class demonstrations of historical experiments, readings in the original literature, and lectures and discussions are employed by the three or more science teachers of the course.

Credit: 2 semester-hours

SCIENCE 419. Field Science and Conservation

In this course students study phases of field science which are related to conservation. The components of soil and water which produce good crops are studied. Students gain an understanding of farm practices by visiting several nearby farms. Forest and wood-lot management, wildlife preservation, mineral resources use, and other important areas in which science influences the conservation of natural resources are investigated.

Credit: 2 semester-hours

SCIENCE 420. Water Supply and Conservation Problems

This course is designed to provide students an opportunity to do an extensive study of the water supply problems in New Jersey and surrounding states. A study of water tables, rainfall, irrigation, drainage, flooding, water shed management, stream pollution, and soil erosion gives students a background for understanding the problems involved in domestic and industrial use of water. State and regional water conservation projects such as Incodel, Passaic Valley Flood Control, and Stoney Brook Watershed are studied. Teaching materials are supplied, and methods of presenting this material to elementary and secondary pupils are demonstrated and discussed.

Credit: 3 semester-hours

BIOLOGY 402. Mammalian Anatomy and Histology

A study is made of the gross structure of a typical mammal and of the structural peculiarities of its various tissues. Both the anatomical studies and histological studies included in this course are pursued with functional significance strongly emphasized. This course prepares the student for the study of human physiology.

Prerequisite: Eight semester-hours of work in zoology

BIOLOGY 407. Comparative Embryology

A study is made of the stages in development and factors influencing the development of different animal types, particularly the vertebrates. Students in this course follow carefully the development of the chick through the earlier stages. Serial sections of entire chick embryos in different stages of development are prepared by individual students and used as a basis for the study of the development of tissues and organs of the animal. Applications of these details of vertebrate development to the development of the mammal are based on observations made through the dissection of pig embryos.

Prerequisite: Eight semester-hours of work in zoology

Credit: 4 semester-hours

BIOLOGY 408. Biological Technique

This course is designed to furnish the prospective teacher of biology with the technical details necessary to enable him as a secondary-school teacher to handle successfully biological materials and experiments and demonstrations in which these materials are employed. Students are trained in methods of collecting and preserving plants and animals for use in the laboratory and classroom. Study is made of the proper methods of preparing illustrative materials with special emphasis laid upon the purpose of these materials.

Prerequisites: Eight semester-hours of work in zoology and four semester-hours of work in botany

Credit: 4 semester-hours

BIOLOGY 409. Human Physiology

A study is made of normal and abnormal physiology based on previous study of mammalian anatomy and histology. In addition to an analysis of the part played by organs and tissues in carrying out the essential functions of the body, special attention is given to problems of hygiene and sanitation. Applications of the above problems are made in reference to children of school age, and the physical condition of individual pupils is correlated with their behavior in the classroom.

Prerequisite: A course in vertebrate anatomy or BIOLOGY 402

Credit: 4 semester-hours

BIOLOGY 412. Genetics

This course considers the scientific basis of the gene concept and its support in experiment from Mendel's work to the present allegations of the Lysenko School. Documents of some of the milestones in the history of the science are studied, and the adherence to scientific method carefully noted. The wide uses of the science in plant and animal improvement and the discoveries related to man's heredity make an integral part of the study. The course helps the teacher of biology or social studies to discriminate between what is scientifically known

and what is political philosophy in genetics. Laboratory exercises supplement lectures and discussion.

An elementary college course in biology is the only prerequisite, and this may be waived in approved cases.

Credit: 2 semester-hours

BIOLOGY 413. Economic Botany

The consideration of the importance of plants and plant life to the world in general and to man in particular is the principal aim of this course. The economic importance of bacteria, fungi, and other lower plants is considered as well as that of the seed plants.

Credit: 2 semester-hours

BIOLOGY 414. Field Ornithology

New Jersey is one of the best areas in the East for the study of birds. On the Montclair campus alone, over 130 species have been observed. This course deals primarily with the identification and natural history of birds. A variety of habitats is visited so that one can become acquainted with the habits and requirements of this unusually well-adapted vertebrate type. Migration, methods of attracting and protecting birds, the value of birds, and other problems are also considered.

Prerequisite: A year of biology or the equivalent

Credit: 2 semester-hours

CHEMISTRY 201: Analytical Chemistry: Qualitative Analysis

The aims of this course are: a knowledge of the preparation of solutions; the separation and identification of the metallic and non-metallic ions; training in the techniques of careful note taking and interpretation of laboratory manipulation to secure information. The class work covers a systematic study of chemical equilibrium and its use in qualitative analysis. The laboratory work continues the work started in general chemistry and involves the complete analysis of several general unknowns.

Prerequisite: CHEMISTRY 101, 102

Credit: 4 semester-hours

CHEMISTRY 202. Analytical Chemistry: Quantitative Analysis

The purposes of the course are: to develop and apply the fundamental principles of solutions; to perfect the techniques of chemistry; to analyze quantitatively substances; to use the chemical balance. The class work covers that chemistry which is needed for gravimetric and volumetric analysis. The laboratory work involves gravimetric analysis, acidimetry and oxidation-reduction reactions.

Prerequisites: CHEMISTRY 101, 102

Credit: 4 semester-hours

CHEMISTRY 203. Analytical Chemistry: Applied Quantitative Analysis

The purposes of this course are: to develop techniques needed to use routine methods of analysis of common substances; to give experience in the application

of chemistry to soil analysis, blood analysis, food analysis, and household preparations. The class work covers the electrochemical theory of oxidation-reduction, the modern atomic theory and its applications to understanding analytical procedure, theory of colorimetry, and the measuring of hydrogen ions.

Prerequisites: CHEMISTRY 101, 102

Credit: 4 semester-hours

CHEMISTRY 407. Advanced Quantitative Analysis

This course is adapted to the needs and preparation of students. The student, after consultation with the instructor, may select analyses from the following: general or special types of oxidation-reduction; gravimetric methods; colorimetric methods; use of organic reagents in analyses; electrometric titrations; conductimetric titration; spectrographic methods of analysis; electrodeposition of metals; and special methods of analysis.

Prerequisites: General college physics and one semester of quantitative analysis, or special permission of the instructor

Credit: 4 semester-hours

CHEMISTRY 408A. Industrial Chemistry, Part I

The purpose of this course is to enable science teachers to understand the type of chemical industries in the State of New Jersey and the nature of their problems. A survey is made by lectures, reports, and trips to plants of the chemical industries in the state. This section of the course stresses the importance and the characteritics of chemical industry, the various unit operations used by the industry to carry out chemical reactions, the controls used to insure quality, organization for research, and the type of workers employed.

Prerequisites: General and organic chemistry, or special permission of the instructor

Credit: 2 semester-hours

CHEMISTRY 408B. Industrial Chemistry, Part II

This course is a study of the chemical industries of the metropolitan area utilizing the methods outlined in Chemistry 408A. Also, a study is made of the economics of chemical industry, chemistry and industry in general, and the effects of chemical discoveries upon living conditions.

Prerequisites: General and organic chemistry, or special permission of the instructor

Credit: 2 semester-hours

CHEMISTRY 411. Physical Chemistry, Part I

This course, the first half of a year's work in physical chemistry, deals with gases, liquids, crystals, physical properties and electrolytes, colloids, thermo-chemistry and homogeneous and heterogeneous equilibria.

Prerequisites: General college chemistry, analytical chemistry, and general college physics

CHEMISTRY 412. Physical Chemistry, Part II

This course deals with electrical conductance, electrolytic equilibrium, electromotive force, electrolysis, polarization, chemical kinetics, photochemical reactions, atomic structure, molecular structure, and radioactivity.

Prerequisites: General college chemistry, analytical chemistry, and general college physics

Credit: 4 semester-hours

CHEMISTRY 413. Atomic Structure and Atomic Energy

This is a lecture course designed to familiarize the student with a modern conception of the structure of matter and to acquaint him with some significant aspects of atomic energy. Some of the topics studied include the following: discoveries leading to knowledge of the structure of the atom; isotopes; nuclear fission; nuclear reactions; chemical versus atomic explosions; the chain-reacting pile; production of plutonium; detection and measurement of nuclear radiation and incendiary effects of atomic explosions; atomic energy for peace-time uses; radio-active isotopes in agricultural, biological, and chemical research; and availability of materials for atomic energy.

Prerequisites: General college chemistry and general college physics, or special permission of the instructor

Credit: 2 semester-hours

PHYSICS 304. Introduction to Photography

This is a beginning course in photography consisting of laboratory work and field work supplemented by lectures and demonstrations. Some of the topics covered are: the construction and operation of cameras, common films and papers, fundamental chemistry of photography, development and printing. A student needs at least one camera.

Credit: 4 semester-hours

PHYSICS 405. Light and Optical Instruments

Topics included for study in the classroom and laboratory are: the propagation of light; emission and absorption of radiant energy; reflection, refraction, polarization; spectrum analysis; photometric measurements; photoelectric cells; measurement of high temperatures; characteristics of illumination, modern illuminants; and industrial and domestic uses of light.

Prerequisites: General college physics and a course in electrical measurements.

Credit: 4 semester-hours

PHYSICS 406. Astronomy

This course is designed to acquaint the student with the celestial sphere, celestial motions, and the phenomena associated therewith; to make him aware of the principles of astronomy. It consists of a survey of the solar system, practical problems in locating and identifying celestial bodies, a consideration of light and

matter, the basic laws of motion, the physical-chemical properties of the sun and stars, stellar scales and maps, the measurement of distance, the cosmology of the universe, the history of astronomical concepts, and the regularities, irregularities, and evolution of the solar system.

This study is aided by the use of selected films and slides, actual sky study and field trips, the use of the sextant, octant, transit, spectroscope, sky maps, planetaria, and by telescopic observations.

Prerequisites: General college physics and chemistry

Credit: 4 semester-hours

PHYSICS 407A. Aviation, Part I

This course deals with the historical development of aviation, air traffic rules, air-worthiness regulations, pilot certification, types of aircrafts, aircraft structures, principles of aerodynamics, lift, drag, stability, motions of an airplane, piloting, motorless flight, and aircraft engines.

Flight experience is made available as a part of this course.

Credit: 2 semester-hours

PHYSICS 407B. Aviation, Part II

This course continues the study of the topics considered in Physics 407A and also develops an understanding of power performance, propellers, engine instruments, and flight instruments.

Flight experience is made available as a part of this course.

Credit: 2 semester-hours

PHYSICS 408. Advanced Aviation

This course consists of the study of navigation; meteorology as applied to flight operations; radio communications; flight and navigational radio aids; instrument flight; jet, turbojet, and rocket flight; and recent advancements in aviation.

Prerequisite: Physics 407

Credit: 4 semester-hours

PHYSICS 409. Introduction to Radio Communication

This course deals with direct and alternating current circuits; construction and operation of detectors; characteristics of audio and radio frequency amplifiers; vacuum tubes; and comparisons of amplitude modulated and frequency modulated transmission and reception.

Prerequisite: General college physics

Credit: 4 semester-hours

PHYSICS 411. Photography

This course consists of laboratory work and field work supplemented by lectures and demonstrations. Emphasis is placed on physical principles in the

construction of cameras, projection printers, tanks, and filters. Special attention is given to chemical principles in the development of films and paper, toning, intensification, and reduction.

Prerequisites: General physics and general chemistry or permission of the instructor

Credit: 4 semester-hours

Students who wish to be recommended by the department to teach aviation should complete the following courses.

PHYSICS 407. Aviation

Credit: 4 semester-hours

PHYSICS 408. Advanced Aviation

Credit: 4 semester-hours

PHYSICS 409. Introduction to Radio Communication

Credit: 4 semester-hours

SCIENCE 401D. The Teaching of Aviation in Secondary Schools

Credit: 2 semester-hours

THE DEPARTMENT OF THE SOCIAL STUDIES

The social studies teacher requires a very broad knowledge of the facts of social life, both past and present. He needs not only to know the facts, but to be able to think about them. Even more important, he must know how to impart his knowledge to younger people and to stimulate their thinking and civic interest. The secondary schools of today are rightfully expected to train for a citizenship which is alert, informed, and socially sensitive. The social studies teacher must bear a large responsibility for the accomplishment of this result.

The Social Studies Department offers a wide range of courses in the subject-matter fields aimed to provide the necessary range of knowledge. Since teachers of all subjects have their share in citizenship training, this department offers for all students, whether social studies majors or not, a course in Civilization and Citizenship which presents a rapid survey of the civilizations of the past, and which examines the nature of social life and the relation thereto of the social studies. For all students there are, likewise, courses in Contemporary American Life.

Social studies majors are required to take courses which are at once broad and thorough in those fields which the secondary-school teacher chiefly needs. Such are the courses in European history, American history, and those courses in economics, politics, and sociology which contribute so largely to an understanding of present-day problems, both American and international.

The aim is that in each of these fields, as the subject matter is studied, there shall also be considered the problems of teaching in that particular field. But in addition to this professionalization of subject-matter, every social studies major is required to take in the senior year a specialized course in the methods of teaching the social studies.

Social Studies Major

The following course requirements constitute the social studies major:

		Semester- hours
Social Studies 101.	European History: 1492-1815	4
Social Studies 102.	European History: 1815-1920	4
Social Studies 201.	American History to 1860	4
Social Studies 202.	American History: 1860 to the Present	4
Social Studies 301.	Economics	4
Social Studies 302.	Field Studies in Urban Life	., 3
Social Studies 401.	The Teaching of the Social Studies in Secondary School	ls 3
Social Studies 407.	New Jersey State and Local Government	2
Social Studies 425.	Medieval Civilization	3
Social Studies 471.	The United States Since World War I	2
either Social Studies 402A.		2
or Social Studies 402B.	Comparative Government	
		25
		2)

Social studies majors are required to make at least sixty observations in the College High School, for the most part in the junior and senior years. In so far as it is possible, these observations should cover the range of high-school classes from the seventh to twelfth grades and should be so organized as to follow the development of entire teaching units.

Minors in the Field of the Social Studies

There are two minors in the field of the social studies; one in history, the other in political science and economics.

The courses in Civilization and Citizenship (SOCIAL STUDIES 100A and 100B) may be counted for six credits toward the eighteen necessary to complete the minor in history. SOCIAL STUDIES 201 and 202 and either SOCIAL STUDIES 101 or SOCIAL STUDIES 102 must be used to complete the minor.

The courses in Contemporary American Life (SOCIAL STUDIES 200A and 200B) may be used for six of the eighteen credits necessary for the minor in political science and economics. The remaining twelve credits should consist of SOCIAL STUDIES 301, 303, 402A, 402B, and 407. When it becomes possible to offer more elective courses, it is probable that other courses in the field of political science and economics will be available to those seeking a minor in that field.

THE FIRST YEAR

During the first year the social studies major, like all other students, takes a course in Civilization and Citizenship to orient him in the field of social studies and to provide him with a background of understanding for all the social studies work of the future.

In addition, he begins his work as a social studies major by an intensive survey of European history.

SOCIAL STUDIES 100A and 100B. Civilization and Citizenship

For a description of these courses, see page 45.

Credit: 3 semester-hours each

SOCIAL STUDIES 101. European History: 1492-1815

Europe's evolution since the breakdown of the Middle Ages; the spread of Humanism; the Renaissance and the Reformation; Europe's colonial expansion; the development of parliaments, with emphasis on England's constitutional struggles; the world rivalry between France and England; Russia's role in Eighteenth-Century Europe; the rise of Prussia; and enlightenments of the French Revolution and the Napoleonic era are studied. Emphasis is given to social, economic, and political changes which were caused by the diffusion of learning, science, inventions, and commerce.

Credit: 4 semester-hours

SOCIAL STUDIES 102. European History: 1815-1920

Europe's balance of power in the era of Metternich; the Industrial Revolution; nationalism; democracy; socialism and internationalism; the liberation of oppressed nationalities; the unifications of Italy and Germany; imperialist rivalries; materialism and militarism; the Balkan powder keg; and the origins of World War I are discussed. Emphasis is given to the inter-relations of changing moral values, economic instability, and social upheavals associated with worldwide conflicts.

Credit: 4 semester-hours

THE SECOND YEAR

All students of the second year, social studies majors included, make a broad survey of current social, economic, and political problems. These courses carry to completion the work of the first year in Civilization and Citizenship. Social studies majors continue their sectionalized preparedness with courses in American history.

SOCIAL STUDIES 200A and 200B. Contemporary American Life

For a description of these courses, see page 45.

Credit: 3 semester-hours each

SOCIAL STUDIES 201. American History to 1860

Emphasis is given to the development of cultural differences among the English colonists, the causes of colonial hostility to the mother country, and the American Revolution. Considerable attention is given to the origin and nature of the United States Constitution and to the founding of the nation. The expansion of the nation territorially, the progress of the industrialization of the North, the rise of the new West, the new democracy, and the great struggle over slavery bring the story to the Civil War.

Credit: 4 semester-hours

SOCIAL STUDIES 202. American History: 1860 to the Present

The Civil War, the economic growth of the United States following Reconstruction, the difficult political and social problems growing out of this change, the increasing interest of the United States in world affairs, and World War I lead naturally to a consideration of present-day problems.

Credit: 4 semester-hours

THE THIRD YEAR

In this year the student comes into his electives, both in his own field of the social studies and in the fields of his chosen minors. Courses are offered in sociology, political science, economics, history, and field studies. All of these courses are rich with materials for his teaching in the contemporary fields of history, and especially in the field of twelfth-grade American history. The courses for students majoring in the social studies are 301, 302, and 425.

SOCIAL STUDIES 301. Economics

This course aims to provide the student with a detailed knowledge of the development and function of American economic institutions, the maladjustments that are apparent, and the changes that are in progress. The topics considered are: the corporation, banks, capital, industrial and agricultural production, problems of consumption, monopoly, foreign exchange, market price, and the distribution of wealth.

Credit: 4 semester-hours

SOCIAL STUDIES 302. Field Studies in Urban Life

This is a field-studies course in which the New York Metropolitan Area is used as the laboratory, and the social, economic, and political activities of the people of the area constitute the subject-matter. The course is designed to furnish

firsthand experiences complementary to all other social studies courses, to reveal new horizons, and to train the student in field-work techniques. Studies are made of levels of living, minority groups, governmental services, economic institutions, and of the historical and geographic background of the region. There are eight field trips. To supplement the trips classroom discussions, lectures, moving pictures, and other multi-sensory aids are used.

Credit: 3 semester-hours

SOCIAL STUDIES 303. The Origins and Development of the American Economy

The general purpose of this course is to trace the history and theory of our present economic system through an examination of the original ideas, forces, institutions, and processes which have shaped its progress.

Specifically, this study describes how technology, transportation, modern credit and banking, business methods, trade unions, and monetary policies have been progressively fashioned and developed; it explains how public policy toward agriculture, commerce, industry, investment, labor, and foreign trade has been formulated by a process of social experimentation; and, finally, it indicates the areas in which new ideas, public policy, and institutional arrangements contribute to the further progress of the American economy so that it can become a more efficient mechanism for augmenting national and international well-being.

Credit: 2 semester-hours

SOCIAL STUDIES 425. Medieval Civilization

This course covers the period from the decline of Rome to about 1500. It first emphasizes the blending of barbarian cultures with that of the Roman resulting in feudalism as a way of life. After that a study is made of the gradual evolution of towns, a trade and industrial economy on a broadening scale, the emergence of monarchical states, an intellectual awakening with the founding of universities, all of which leads finally to our modern system of national states.

Credit: 3 semester-hours

THE FOURTH YEAR

The work of the fourth year serves to bring to a focus the work of the preceding years, as regards both subject-matter and the teaching of it. Social studies majors during the first semester are given a systematic course in the Methods of Teaching Social Studies. They also take courses in New Jersey State and Local Government and in recent American history.

This preparation leads directly to actual teaching experience when, in the second semester, each major spends twelve weeks in a secondary school teaching the social studies under the careful supervision of a teacher in that school and of members of the College staff.

In addition to the above mentioned required courses each senior is required to take one course in the Social Studies Department upon return from student teaching.

SOCIAL STUDIES 401. The Teaching of the Social Studies in Secondary Schools

The course aims to present recent tendencies in educational method in teaching the social studies. A program is presented containing the correlation of subject-matter organization in socialized recitation, the teaching of current events, projects in citizenship, and the use of the project-problem as a method of teaching history and civics. A laboratory containing texts and workbooks in the social studies field is available to the students of this course.

Credit: 3 semester-hours

SOCIAL STUDIES 402A and 402B. American and Comparative Government

The basic facts and principles necessary for the teaching of civics, history, and the political aspects of Problems of American Democracy are studied. The first part is devoted to American national government, including the obligations and rights of citizens, the suffrage, political parties, the changing nature of the Federal system, and the executive, administrative, legislative, and judicial systems. The second part deals with similar political phenomena in England, France, Germany, Italy, and Russia.

Credit: 2 semester-hours each

SOCIAL STUDIES 407. New Jersey State and Local Government

A study is made of the State Constitution; New Jersey's place in the Federal system; the rights and duties of citizens; suffrage; political parties; the legislative, the executive, and administrative systems; the courts, the law enforcement and correctional systems; revenues and expenditures; public health, educational, highway, and other services; county and municipal government; and other local political units.

Credit: 2 semester-hours

SOCIAL STUDIES 471. The United States Since World War I

This course surveys the major problems, economic, social, political, and international, which have marked our national development since the end of the first World War. It is intended especially for social studies seniors as a preparation for the second year of secondary-school American history as provided for in the recently adopted state requirements.

Credit: 2 semester-hours

ELECTIVES

The following are intended as elective courses for juniors and seniors; some of them may, under certain circumstances, be taken by sophomores with the consent of the Chairman of the Department.

Ancient and Medieval History

SOCIAL STUDIES 421. Oriental Civilization

This course presents the important contributions to civilization and social progress made in antiquity in three great centers of the Near East—Egypt, Mesopotamia, and Crete. Discussion of the Oriental culture pattern is amplified by visual aids. Emphasis is laid on the results of modern archeological research in completing the picture of early life in the Near East.

Credit: 2 semester-hours

SOCIAL STUDIES 422. Greek Civilization

The aim of this course is to present the development of Greek Civilization from the earliest period to the beginning of the Christian Era. The units of emphasis are: The Migrations; Life in the Dark Ages; The Fifth Century Climax; Alexander's Era; and the civilization of the great Hellenistic centers, Alexandria and Pergamum. Consideration is also given to the Greek experiment in Federal government, the Achaean League.

Credit: 2 semester-hours

SOCIAL STUDIES 423. Roman Civilization

This course traces the social changes in Rome from the earliest times to the end of the Western Roman Empire. Attention is directed to the earliest features of Roman civilization and to the changes—political, social, and economic—resulting from Etruscan, Carthaginian, and Greek influences. The rise and fall of the empire are discussed with relation to their importance in medieval civilization.

Credit: 2 semester-hours

SOCIAL STUDIES 426. Medieval History to 1498

In the first part a study is made of the factors contributing to the political breakdown of the imperial principle, such as the growth of Christianity, barbarization of the West, and the expansion of Islam. Increasing centralization in France under the Capetians is contrasted with the rapid decentralization of the Holy Roman Empire. The growth of Feudalism and the Crusades is emphasized. The second part is devoted to the developments in Western Europe after 1200, stressing political movements, medieval commerce, guilds, growth of towns, and cultural changes.

Credit: 4 semester-hours

SOCIAL STUDIES 427. Ancient History to 378 A.D.

The first part of this course covers the Oriental period and the Greek through the Periclean Age. Detailed study is given the Egyptian, Babylonian, and Hittite cultures, and Athenian democracy and imperialism. The second part covers the Helenistic period from the rise of Philip of Macedon, stressing attempts at federalism. It also covers all periods of Roman history, placing special emphasis on republican forms and imperial experiments in governmental organization and control.

SOCIAL STUDIES 473. The Arts in Western Civilization

This course is designed to show how the social, economic, political, and religious movements in Western Civilization influenced the aesthetic expression of Europe from the Golden Age of Greece to the Rise of the Industrial Revolution. Greek, Roman, Byzantine, Gothic, Baroque, and Rococo art, architecture, and music are discussed and illustrated.

Credit: 2 semester-hours

Modern European History

SOCIAL STUDIES 414. Modern England

This course deals both with the historical periods as such and with the influences of the political, economic, and social forces in the English literature of the century. The Napoleonic era, political reform, factory reform, the humanitarian movement, the Irish question, the ministries of Gladstone and Disraeli, and the interpretation of politics and literature are considered.

Credit: 2 semester-hours

SOCIAL STUDIES 420. European Outlook

This course is designed to provide the background for understanding Europe today. The reality of idealogical struggles between free and totalitarian countries is emphasized as a main source of present-day conflict. The Russian Revolution of 1917, the rise and collapse of Facism and Nazism, the Spanish Civil War, Munich, World War II, and world political developments from Yalta to our day are stressed. It is attempted to show how adversely an unstable Europe must affect the United States and the world, and to what extent a totalitarian Europe would threaten the balance of peace. Diplomatic, idealogical, and military strategy, and the gravity of the atomic menace are pointed out.

Credit: 4 semester-hours

SOCIAL STUDIES 441. Economic History of Europe

The study of Europe from an economic point of view is particularly important in the light of present European problems and their relation to world-wide conditions. This course is a survey of the economic life and development of Europe from the emergence of the ancient civilizations to the beginning of the modern economic world. It gives special attention to economic causes that underlie the dislocation and perplexities of the last century.

Credit: 2 semester-hours

SOCIAL STUDIES 448. The British Dominions

This course deals with the role Canada, Australia, New Zealand, and South Africa are playing in present world affairs. Special emphasis is given to Canada and its dual position as an American state and a part of the British Empire.

SOCIAL STUDIES 457. Development of Russia

Factors which have shaped the evolution of the Russian people, such as Byzantinism and the Greek Orthodox faith, the Synod, tartar state organization, the Mir, Westernization from Peter to Lenin, Slavophilism and dialectic materialism, are emphasized. An account is presented of Soviet internal organization, sovkhoz, kolkhoz, and the Five-Year plans. In addition to the historical background, Russia's great writers are discussed in the light of social and political developments.

Credit: 2 semester-hours

SOCIAL STUDIES 458. Russia as a World Power

An analysis of Russia's relations with China, Iran, Turkey, the European continent, England, and the United States is presented. Marxist world policy, as interpreted by Kautsky, Plekhanov, Jaures, Bukharin, Trotsky, Lenin, and Stalin, is described. The changing views of the Second and Third Internationals, and the organization and methods of the Comintern are discussed. A chronological account of Soviet diplomacy, since Chicherin, is offered.

Credit: 2 semester-hours

SOCIAL STUDIES 493. Western Europe Since World War I

This course presents an outline of the rise of communism and fascism and the reaction of western democracies to these movements. The Civil War in Spain, the Munich Pact, the failure of the League of Nations, diplomatic events of the World War II era, United Nations problems, the North Atlantic Pact, and special problems of western defense are emphasized. An evaluation of western Europe's significance for the United States is attempted.

Credit: 4 semester-hours

United States History

SOCIAL STUDIES 408. A History of New Jersey

This course is designed to assist teachers in acquiring a better knowledge of their state. A study is made of the history of New Jersey from the point of view of the social, political, economic, and cultural development of the people from the beginning of the settlement to the present. Special attention is given to the geographical and industrial aspects of the state, and the place of New Jersey in the national setting.

Credit: 2 semester-hours

SOCIAL STUDIES 413. Economic History of the United States

The great trends and movements in agriculture, finance, commerce, manufacturing, transportation, and industrial relations are traced from their beginnings in the colonial period to their contemporary expressions in the present crisis. This course supplements, but it does not duplicate, courses in the political history of the United States or courses in economic principles and problems.

SOCIAL STUDIES 419. American Political Biography

This is the study of the life and influence of the leading figures in American political and social history. It is the aim here to show the relation of each of these characters to the times in which he lived and to point out how he influenced the trend of American life. The study includes such leaders as Washington, Jefferson, Hamilton, Webster, Lincoln, Cleveland, T. Roosevelt, and Wilson.

Credit: 2 semester-hours

SOCIAL STUDIES 438. The Literature of American History

A brief description of the material available for the study of American history is followed by class practice in finding and using the primary sources of some of the facts commonly taught in schools. Representative American historians, their training for historical study, the sources they used, the degree of accuracy with which they used their sources, their point of view, their plan of organization, and their present importance are discussed.

Credit: 2 semester-hours

SOCIAL STUDIES 447. Diplomatic History of the United States

The purpose of this course is to show how we have become gradually conscious of our world interests and responsibilities, and the important role we have come to play in international politics. The growing concept of world democracy as opposed to commercial and military imperialism, is stressed.

Credit: 2 semester-hours

SOCIAL STUDIES 474. America in Transition

This course surveys rapidly the results of the Civil War and then emphasizes the major trends, economic and social, which have made modern America. It is intended as a more advanced study than that which is made in the undergraduate course. The period covered is from 1867 to around 1914.

Credit: 2 semester-hours

SOCIAL STUDIES 475. The History of American Thought

This course considers the influential thinking in America from the Mayflower Compact to the Marshall Plan to see how certain ideas or trends of thought have grown out of situations and have in turn helped to mould the course of our history. The student should gain an appreciation for the American contribution to world culture, and an examination is made of outworn stereotypes which exist today. The writings and discourses of important American thinkers are considered including Mather, Paine, Jefferson, Emerson, Thoreau, and Veblen.

SOCIAL STUDIES 480. Social History of the United States

This course presents a study of the social and cultural aspects of American history. As such, it supplements but does not take the place of economic and political history. The course considers population movements and growth, rural and urban social problems, status of women, family life, utopian ventures, mass media of communication, amusements and recreation, and human rights.

Credit: 2 semester-hours

The Americas

SOCIAL STUDIES 415. Latin-American Relations of the United States

This course aims to provide the information necessary to a clear understanding and accurate appreciation of the political, economic, and social relations that have developed between us and our Latin-American neighbors. To achieve this end, it considers the geographical conditions, the historical events, and the civic circumstances that have motivated and directed the growth of these relations and that will determine our Latin-American policy in the future.

Credit: 2 semester-hours

SOCIAL STUDIES 417. American Archaeology

This course shows that the New World of the early discoverers was in reality far from new. The course discusses the prehistoric pueblo dwellers and early mound builders. The truly remarkable civilizations of the Mayas and the Incas are examined and compared with that of the Aztecs. North American tribes of Indians are also studied in order to evaluate their significant cultures.

Credit: 2 semester-hours

SOCIAL STUDIES 435A. The Americas: A Contemporary Political, Economic, and Cultural Survey, Part I

This course deals specifically with the relations of the United States and the Caribbean countries. Attention is given to the dependencies of the United States in this region as well as to the independent republics. Twentieth Century political, economic, and cultural developments of this region are stressed in light of the inter-American system.

Credit: 2 semester-hours

SOCIAL STUDIES 435B. The Americas: A Contemporary Political, Economic, and Cultural Survey, Part II

This course deals specifically with the Twentieth Century political, economic, and cultural life of the South American nations. The role which the South American states play in world affairs is stressed. Attention is given to post-World War II devolopments and adjustments in South America.

SOCIAL STUDIES 440A and 440B. The Development of Central and South America: as Colonies and Nations

The first part of this course surveys the period of exploration and settlement in the colonies of South and Central America. It traces the revolutionary movements that led to their independence and national development as Latin American countries. The second part studies the experiences of the various Latin-American nations under different forms of government, ranging from absolute dictatorships to "popular front" administrations. It explains the economic and social standards of living accepted by the South and Central American people, and recognizes the contributions they have made to the growth of Pan-Americanism during the last century.

Credit: 2 semester-hours each

SOCIAL STUDIES 453A. The Development of Mexico and the Caribbean States

It is intended to show in this course the historical development of Mexico and the Caribbean nations in terms of their political, cultural, social, and economic progress in order to develop understandings and appreciations for their cultures and present-day problems. The relationships of their problems to those of the other American nations are stressed and placed in proper perspective.

Credit: 2 semester-hours

SOCIAL STUDIES 453B. The Development of Canada

This course is devoted to the study of the historical background, geographical environment, governmental organization, economic behavior, and social conditions of the northern neighbor of the United States. Its professional objective is to provide the understanding and appreciation necessary to the student and teacher who may follow and interpret the growth, internal and external, of the Dominion of Canada and of its relation to the United States as well as to the British Commonwealth of Nations.

Credit: 2 semester-hours

International Affairs

SOCIAL STUDIES 412. International Government

The attempts of the international community of states to express itself in a formal world organization are the subject of this course. The agencies which have been established to deal with international legislative, executive, administrative, and judicial problems are studied. Specifically, among the topics discussed are: the national State system, sovereignty, equality, intervention, international law, diplomatic services and procedures, international conferences and unions, sanctions, treaties, arbitration, international courts of justice, armaments and war, League of Nations, International Labor Organization, regional agreements, the United Nations.

SOCIAL STUDIES 434. Contemporary World Affairs

This course is devoted to a survey of the leading diplomatic, economic, political, and military issues before the world today. The backgrounds from which these international affairs have evolved are reviewed. A study is made of the significance of these issues in the development of a program for international cooperation and peaceful living among the peoples of the world.

Credit: 2 semester-hours

SOCIAL STUDIES 442. The Far East

A study is made of the economic, social, and cultural situation of the Far East, with particular emphasis on the historical background of China and Japan, and on our relations with the Philippines. Oriental folkways, religion, education, population shifts, and strategic questions are discussed. This course provides an approach to the problems the United States must face in the Far East.

Credit: 2 semester-hours

SOCIAL STUDIES 451. The Middle East

This course is a survey of Indian and Moslem civilization. It shows that economic and political changes alone do not suffice to adjust the peoples of the Middle East to Twentieth-Century civilization, and that many cultural traditions, must vanish while some forgotten features of the past are to be revived. Postwar planning for the region from the Near East through Persia, India, Burma, Thailand, and Malaya to the Netherland East Indies is discussed.

Credit: 2 semester-hours

Economics

SOCIAL STUDIES 446. Current Problems in Economics and Government

This course is designed to analyze the relationship of economics to government. The causes and results of governmental activity are discussed in the light of their economic significance and their bearing on public welfare.

Credit: 2 semester-hours

SOCIAL STUDIES 450A and 450B. Modern Economic Problems and Policies

The purpose of this course is to contribute to the general need for increased knowledge in the area of economic relationship, using the problem-approach method of analysis. 450A begins with a brief recapitulation of the overall functioning of the economic system, after which the class proceeds to a detailed study of our broader economic problems and the public policies relating to them. Specifically, the problems are those relating to population and natural resources, the economic functions of government, the measurement of economic activity, monetary stability, basic banking problems, business cycles, marketing trends, economic inequality, and social security. 450B considers those problems associ-

ated with the world economy, international trade and exchange, monopoly and its regulations, the problems concerned with the control of public utilities, emergency price regulation and economic stabilization, labor problems, the problems of public finance, the public debt and fiscal policy, and finally, the nature of comparative economic systems and their relations with each other.

Credit: 4 semester-hours

SOCIAL STUDIES 456. International Economic Relations

The purpose of this course is to study the significance of international trade and exchange to the economic life of our nation and the world economy. An analysis of the contrasting economic philosophies relating to international economic organization is made. Special emphasis is given to those policies which tend to promote freer trade, including the classical doctrine of comparative costs, the Reciprocal Trade Agreements Act, and the International Bank and Currency Stabilization Fund.

Credit: 2 semester-hours

SOCIAL STUDIES 482. Conservation and Rural Economic Life

This course provides for a study of one of the basic economic problems in America today. Land use, farm loans, price support of farm products, increased acreage production, conservation practices, are among the topics studied to give the student a better understanding of the relationship between rural and urban living. Trips are arranged to nearby farms, dairy cooperatives, farm bureaus, banks, and town meetings.

Credit: 2 semester-hours

Sociology

SOCIAL STUDIES 429. Present-Day Social Problems

Beginning with a survey of levels of living in the United States and their relation to the distribution of wealth and income, this course proceeds with a study of poverty and crime, their sources, treatment, and prevention. Among the topics discussed are: housing, wages, unemployment, physical illness, accidents, old age, physical and mental defectiveness, the nature and extent of crime, police and prison systems, the criminal courts, and methods of punishment and reformation.

Credit: 2 semester-hours

SOCIAL STUDIES 439. The Family and Its Problems

This course gives a history of the family, our American family patterns, the effects of social change, marital patterns of interaction, social roles, sources of conflicts and frustrations, divorce and desertion, special problems in family life, economics of children and the home, social legislation pertaining to family problems, marital adjustments, personality change after marriage, parent-child relationships, and personality reorientation.

SOCIAL STUDIES 443. Youth and the Community

This course is a sociological study of youth in its many relations to the community. Special attention is given to problems which arise in the relationship of youth and the community; e.g., juvenile delinquency, conditions contributing to maladjustment, poorly adjusted children, and educational and social agencies active in solving youth behavior. Through the study of concrete cases, social treatment and community research are demonstrated.

Credit: 2 semester-hours

SOCIAL STUDIES 444. The Social Bases of Human Relations

This course emphasizes the social bases of human nature and personality. Primary and secondary groups, folkways, mores, and institutions are considered. Special consideration is given to ecological and community differentials in reference to poverty, unemployment, criminality, incidence of disease, and mental derangement. Personal disorganization is studied as a process, and social forces leading to community maladjustment and social breakdown are reviewed.

Credit: 2 semester-hours

SOCIAL STUDIES 455. Social Legislation

This course analyzes the social, economic, and political adjustments which have come about in our society due to technological progress. The content covers such subjects as public policy relative to immigration; the problems of national income and its distribution; labor legislation; public policy to aid and protect the consumer; and an analysis of competing philosophies pertaining to industrial and social progress.

Credit: 2 semester-hours

SOCIAL STUDIES 476. Personality Development and Group Relations

A study is made of personality growth through social contacts, the environmental factors found in the home and family, neighborhood, play, and school groups. Methods of measuring the place of the individual in the group, analysis of the group process, ways of bringing about better life adjustment, and integrating experiences are the subject matter of the course. Concrete cases of maladjustment to society and disintegrated personality are studied. Agencies in the community which serve youth are visited, and leadership in community group activities is recognized as part of the course requirements.

Credit: 2 semester-hours

SOCIAL STUDIES 477. Rural Sociology

During this course the student comes face to face with rural life in northern New Jersey. Social processes and problems are considered. Opportunities are provided for students to attend Grange meetings, county fairs, rural dances and parties, and to live for a day or two with a farm family.

SOCIAL STUDIES 479. Education and Intercultural Relationships

Within our nation as within the world, along with common needs and interests, there exist differences between groups and individuals which act as barriers to satisfying human relationships. This course is devoted to a consideration of these barriers and of common interests and needs which exist in spite of such barriers. We study not only the existence of such conditions but also the attitudes, principles, and techniques which may make for better human relationships.

Credit: 2 semester-hours

SOCIAL STUDIES 483. Modern Approaches to Social Problems

This course is designed to acquaint students with techniques and practices developed in recent years for a scientific approach to problems of human relationship. Techniques to be studied include: sampling techniques for testing large groups, questionnaires, interviewing techniques, objective observation of culture patterns, objective observation in controlled laboratory situations, sociometrics, role-playing techniques, attitude testing, and use of semantic analysis in test construction. Students become acquainted with these techniques through the study of a variety of recent reports. The selection of items to be studied depends on the needs and interests of class members. This course is designed to aid in the development of attitudes and practices which make possible the use of a modern, scientific approach to social problems.

Prerequisite: An introductory course in sociology or special permission of the instructor

Credit: 2 semester-hours

SOCIAL STUDIES 494. Social Studies and Conservation

Everyday problems of living as they are related to and affected by the wise use of our natural resources are studied in this course. The student learns about the renewable resources, soil, water, forests, and wildlife, as well as the non-renewable resources, minerals, oil, and coal. Economic, social, community, national, and individual problems are approached by giving the student firsthand experiences gained through extensive field trips in northern New Jersey. This course is of particular interest to social studies and elementary school teachers but also forms an excellent experience background for all educational fields. Methods of teaching, courses of study, and teaching units are developed.

Credit: 2 semester-hours

Political Science

SOCIAL STUDIES 430. The Citizen and the State

This course is designed to help any citizen become better acquainted with the many organizations by and through which our complex society manages itself. The emphasis is placed on government and political organizations, but the course also includes a study of the many other organizations of the community, the county, and the state that have to do with directing policy and maintaining controls. The aim of the course is to encourage intelligent appreciation and participation rather than simply to accumulate academic information. Consideration is also given to the ways in which such working knowledge can become a part of the experience of the pupils in our schools.

Credit: 2 semester-hours

SOCIAL STUDIES 433. American Political Thought

This course deals with contemporary trends and theories as they have emerged from social and economic conditions and as they are founded upon the bases laid down by such men as Hamilton, Madison, Washington, Jefferson, Marshall, Calhoun, Webster, Lincoln, and Wilson.

Credit: 2 semester-hours

SOCIAL STUDIES 437. The Political Party System in the United States

Among the topics discussed are: party organization, the political boss, the political machine, party finances, the process of voting, election laws, primaries, conventions, platforms, presidential elections, majority rule, the development of the party system, sectional politics, the farm vote, the labor vote and the future of party government in the United States.

Credit: 2 semester-hours

Philosophy

SOCIAL STUDIES 404. The Philosophy of History

It is the purpose of this course to investigate the relation of history to the other social studies and also the major attempts to find the meaning of history. A brief survey is made of the leading philosophies of history.

Credit: 2 semester-hours

SOCIAL STUDIES 470. History and Principles of Philosophy

This course presents a study of the history of philosophy and of the important principles contributed by outstanding philosophers from Thales to Gentile. Much of the discussion is centered on three types of philosophic thought: naturalism, idealism, and pragmatism. Among the philosophers considered are: Plato, Aristotle, Bacon, Spencer, Rousseau, Hegel, James, Dewey, and Gentile.

Credit: 2 semester-hours

SOCIAL STUDIES 478. Theories of Social Justice from Antiquity to Our Time

This course is designed to show how specific ideas of social justice resulted from specific historical conditions and events. A comparison of social upheavals among the ancient Hebrews, Greeks, and Romans; the early Christians; the peasants in the Middle Ages; the religious rebels of the early Renaissance; and the revolutionaries of the modern age is to furnish background material for an under-

standing of present social thought. Lectures and discussions cover the social prophets of the Hebrews; Lycurgus; Cleomenes; Plato; Gracchus; Spartacus; the Essenes, the Waldensians, the Albigensians, and the Hussites; Wycliffe; John Ball; and on selected social thinkers of the last few centuries, such as Hobbes, Locke, Hume, Rousseau, the Utopians, the Socialists, and the Anarchists.

Credit: 2 semester-hours

Educational Techniques

SOCIAL STUDIES 472. Modern Social Studies Instruction and Supervision

This course is designed primarily to assist teachers and supervisors to obtain a comprehensive view of recent curricular trends, current subject-matter tendencies, and newer practices in secondary-school social studies. Topics discussed include: materials, methods, and techniques; use of audio-visual aids; courses of study and experimental programs; professional literature; and problems of the critic teacher and the supervisor.

Credit: 2 semester-hours

FIELD STUDIES IN AMERICAN LIFE

SOCIAL STUDIES 460. Central Eastern Region

This fifteen-day tour of Pennsylvania, Maryland, Virginia, West Virginia, North Carolina, and Tennessee covers the major points of historic interest associated with the Colonial Period, the American Revolution, and the Civil War, and the geographic features of the coastal plain, the Piedmont, the Great Valley, and the Appalachian Mountains in these states. Travel is by modern chartered motor coach, and overnight stops are made at first-class hotels. Among the places visited are: Valley Forge, Philadelphia, Baltimore, Annapolis, Washington, Arlington, Alexandria, Mt. Vernon, Fredericksburg, Richmond, Washington's birthplace at Wakefield, Lee's plantation at Stratford, Yorktown, Williamsburg, Jamestown, Raleigh, Chattanooga, Asheville, Great Smoky Mountains, Norris Dam, Jefferson's Monticello at Charlottesville, Natural Bridge, Skyline Drive in the Shenandoah National Park, Luray Caverns, Winchester, Harper's Ferry, Frederick, Gettysburg, and the Pennsylvania Dutch area around Lancaster and Ephrata.

Credit: 3 semester-hours

SOCIAL STUDIES 461. New England and French Canada

This field-study course gives an opportunity to study by direct observation the historical and geographical features of New England and the Province of Quebec. This trip, occupying the twelve days immediately following the summer session, is made in a modern chartered motor coach with overnight stops at first-class hotels. The route covers the lower Connecticut Valley, including Hartford, Springfield, Northampton, and Deerfield; the Rhode Island cities of Providence and Newport; historic Massachusetts towns, such as Plymouth, Bos-

ton, Lexington, Concord, Salem, and Marblehead; the coast of New Hampshire and southern Maine; the White Mountains in the Mt. Washington and Franconia Notch area; the Canadian Province of Quebec, including the ancient French city of Quebec, Montmorency Falls, Ste. Anne de Beaupre, Montreal; the western shores of Lake Champlain, Lake George, and the Hudson River. It is an indispensable background for an understanding of Colonial and Revolutionary life and history in this region.

Credit: 3 semester-hours

SOCIAL STUDIES 462. Continental United States

This field-study course consists of sixty-two days of directed travel, including all of July and August, and provides an opportunity for gaining an integrated view of our country as a whole. The trip is made in a modern chartered motor coach with overnight stops at first-class hotels. The route covers about 12,500 miles and visits 26 states and 6 National Parks. Among the major points of interest are: Gettysburg, Natural Bridge, Blue Ridge and blue grass region, Mammoth Cave, Lincoln shrines in Kentucky and Illinois, Dodge City, Royal Gorge, Pikes Peak, Denver, Rocky Mountain National Park, Taos and other Indian Reservations, Santa Fe, Petrified Forest, Painted Desert, Grand Canyon, Bryce and Zion National Parks, Hoover Dam, Los Angeles, Hollywood, San Diego, San Juan Capistrano and other Missions, Tia Juana, Santa Barbara, Sequoia and Yosemite National Parks, Monterey, San Francisco, Sacramento, Lake Tahoe, Reno, Donner Pass, mammoth redwood groves, Crater Lake, Columbia River Valley, Portland, Seattle, Mt. Rainier, Grand Coulee Dam, Spokane, Butte, Yellowstone National Park, Salt Lake City, pioneer trails of Wyoming, Black Hills, Chicago, Detroit, Toronto, and Niagara Falls. All important geographic and historical features are studied under the instruction of members of the college faculty and local specialists. Write for detailed descriptive folder.

Credit: 10 semester-hours

SOCIAL STUDIES 463. The Lower South

This is a fifteen-day field-study course covering the gulf coasts of Louisiana, Mississippi, and Alabama, and both coasts of Florida. Among the topics observed and studied are: the Acadian and Creole culture in and around New Orleans; the industrial, historical, and recreational features of Biloxi, Mobile, and Tallahassee; the tobacco, citrus, and sponge-fishing industries in the neighborhood of Tampa, St. Petersburg, Lake Wales, Sarasota, and Fort Myers; the plant and animal life of the Everglades along the Tamiami Trail; the millionaire playgrounds of Miami and Palm Beach, and the historical shrines of America's oldest city, St. Augustine. It is usually offered during the Christmas holidays.

Credit can be given for only one of the following courses: Soc. St. 463, 464, 467, and 484.

SOCIAL STUDIES 464. Southeastern Region and Gulf Coast

This is a twelve-day field-study course covering the Atlantic Coast from Baltimore to Savannah and the Gulf Coast from Tallahassee to New Orleans. It surveys the economic, geographic, and historical aspects of the coastal plain, the Piedmont, and the lower Mississippi Valley visiting, among other places, Richmond, Williamsburg, Charleston, Savannah, Tallahassee, Pensacola, Mobile, Biloxi, New Orleans, Baton Rouge, Natchez, Vicksburg, Jackson, Birmingham, Atlanta, Greenville, Charlotte, and Greensboro. It is offered during the Christmas holidays.

Credit can be given for only one of the following courses: Soc. St. 463, 464, 467, and 484.

Credit: 3 semester-hours

SOCIAL STUDIES 465. The Border States

This is a nine-day field-study course covering mainly the states which were border or frontier states during the early stages of the westward movement or border states between the North and the South during the Civil War. The route of the trip is down the Eastern Shore of Delaware and Maryland to Williamsburg, up the southern shore of the James River to Appomattox and across the mountains to Natural Bridge; then down the Great Valley to Knoxville and the Norris Dam, westward to Nashville, north again to Mammoth Cave, the Lincoln Memorial, and the Blue Grass Country of Kentucky, up the Ohio River through the land of iron and steel to Pittsburgh, and finally homeward across the Appalachians by way of the Pennsylvania Turnpike.

Credit: 2 semester-hours

SOCIAL STUDIES 466. Puerto Rico and the Virgin Islands

This is a nine-day field-study course devoted to a survey of our nearest island possessions. It includes a rather thorough exploration of San Juan and its vicinity, including the University, the rain forest and the submarine gardens, a two-day trip through the island visiting pineapple, coffee, sugar, textile, and rum producing areas, churches, homes, and historic places. One day is spent in St. Thomas largest of the Virgin Islands. The trip to and from the islands is made by air. It is usually offered during the Christmas holidays.

Credit: 2 semester-hours

SOCIAL STUDIES 467. Florida

This is a field-study course covering the Florida peninsula including both coasts, the Everglades, and the Lake Region. Among the places visited are ancient St. Augustine; the winter playgrounds at Palm Beach and Miami; the Tamiami Trail through the Everglades; the west coast cities of Sarasota, St. Petersburg, and Tampa; and the Lake Region in the neighborhood of Lake

Wales and Orlando. The trip affords opportunity for topographical, historical, and industrial studies. It is usually given during the Easter vacation.

Credit can be given for only one of the following courses: SOCIAL STUDIES 463, 464, 467, and 484.

Credit: 2 semester-hours

SOCIAL STUDIES 469. Mexico

This field-study course aims to give a comprehensive view of contemporary Mexican life with its geographic, economic, historic, and cultural setting. Transportation to and from Mexico City is by air and in Mexico by private cars. Overnight stops and meals are at the best hotels. Places visited include Xochimilco, Acolman, Teotihuacan, Fortin, Pueblo, Oaxaca, Guadalajaro, Quertero, Guanajuato, Patzcuavo, San Miguel de Allende, San Jose, Purua, Morelia, Toluca, Taxco, and Cuernevaca. The itinerary is carefully planned to include all points of major interest and significance. Special studies may be made in the fields of geography, history, art, architecture, archaeology, sociology, economics, and other fields.

Credit: 3 semester-hours

SOCIAL STUDIES 481. The West Indies

This course consists of ten days of directed travel in five countries in the Caribbean region. Transportation is by air and private car with overnight stops at the best hotels. Opportunities are given for study of geographic, historic, economic and cultural phenomena in Puerto Rico (one day), Santo Domingo (two days), Haiti (two days), Jamaica (two days), Cuba (two days), visiting San Juan, Cuidad Trujillo, San Cristobal, Port au Prince, Kenscoff, Kingston, Havana, and rural areas in all countries.

Credit: 2 semester-hours

SOCIAL STUDIES 484. Gulf Coast and Lower Mississippi Valley

This is a field-study course covering the Gulf Coast from Mobile to New Orleans. It also surveys the economic, geographic, and historical aspects of the lower Mississippi Valley. Some of the places visited are Mobile, Biloxi, New Orleans, Baton Rouge, Natchez, Vicksburg, and Jackson.

Credit can be given for only one of the following courses: Soc. St. 463, 464, 467, and 484.

Credit: 2 semester-hours

BACKGROUND STUDIES IN AMERICAN LIFE

SOCIAL STUDIES 492A and B. Studies in American Life—The East and the West

These courses comprise a unit designed to give the student an integrated understanding of the United States as a cultural, historic, geographic, economic, social, and political unit and, at the same time, an appreciation of the regional

differences which characterize American unity in diversity. It should be useful to those who have traveled, to those who intend to travel, and to those who, although they cannot travel, wish to broaden their knowledge of our country. The geography, the history, the literature, the art, the music, the architecture, the people, the manners and customs, the flora and fauna, the economic, social, and political problems, and the significant personalities of the regions studied are discussed and illustrated with slides, films, and other audio-visual materials. Either course may be taken without the other.

The subject matter of SOCIAL STUDIES 492A covers New England, the Central East, the South, and the Middle West east of the Mississippi River. The subject matter of SOCIAL STUDIES 492B deals with the regions west of the Mississippi; i.e., the Great Plains, the Mountain States, the Southwest, the Northwest, and California.

Credit: 2 semester-hours each

INSTITUTES AND WORKSHOPS

SOCIAL STUDIES 490A. United Nations Institute

This course covers four and one-half hours per day for ten consecutive days excluding Saturday and Sunday. It consists of basic lectures on factual backgrounds by the instructor, supplementary lectures by visiting lecturers from the United Nations and other organizations, discussions, workshop and library projects, demonstrations of the use of audio-visual materials, and field trips to the United Nations. Included among the subjects studied are: the national state system, war and peace, world organizations (past, present, and proposed), the national armaments problem, international law, the international police proposal, pacific methods of settling international disputes, and the outlook for international cooperation.

Credit: 3 semester-hours

SOCIAL STUDIES 490B. The United Nations and American Foreign Policy

The purpose of this course is to help provide an understanding of the United Nations in its operation as a basis for American foreign policy. In that the Charter of the United Nations forms the backbone of American cultural, economic, and military cooperation with other nations, its interpretation and the application of our aid to needy people open a wide area of disagreement within the nation. Following the principle that American foreign policy should rest upon an intelligent understanding on the part of the electorate and working within the framework of the policy of the State Board of Education with regard to controversial issues, the United Nations Institute deals with the strong as well as the weak aspects of this newly created world organization. This Institute serves the needs of teachers of all grades, students of foreign policy, the public at large, as well as visitors from other lands who are here to study the ways of

American democracy. It is available to students who have completed the requirements for SOCIAL STUDIES 490A, *United Nations Institute*, or the equivalent.

Credit: 3 semester-hours

SOCIAL STUDIES 490C. The Specialized Agencies of the United Nations

The purpose of this course is to give the student an opportunity to learn about the various activities of the specialized agencies of the United Nations. The course deals with the positive activities of the United Nations in the various areas of human welfare. Visiting lecturers from the agencies themselves and from areas of the world receiving such help are a regular part of the class work. Trips to the New York offices of these agencies and individual research make up the balance of the work for this course.

SOCIAL STUDIES 490A, United Nations Institute, or its equivalent is a prerequisite for this course.

Credit: 3 semester-hours

SOCIAL STUDIES 490D. The United States and World Affairs

The purpose of this course is to give the student an opportunity to make a thorough survey of the leading problems in world affairs. Visiting lecturers from agencies concerned with the problems of today's world supplement the basic information supplied by the regular members of the Institute staff. Included among the subjects studied are: Underdeveloped areas of the world, technical assistance, international trade and cultural interdependence. Special emphasis is placed on the relations of the United States with such areas of the world as the Far East, Eastern Europe, the Middle East, Western Europe, and Latin America.

This course is designed primarily for teachers who feel the need for accurate background information and improved teaching materials and techniques for use in their classrooms. In addition to the conventional lectures, this course features the showing of the latest films in the field of world affairs, field trips to the United Nations and to foreign areas of New York, exhibits of teaching materials, demonstrations of teaching techniques and materials, folk singing, and folk dances suitable for classroom use.

Credit: 3 semester-hours

SOCIAL STUDIES 490E. Latin America, a Survey

The purpose of this course is to give the student an opportunity to make a thorough survey of Latin America. Visiting lecturers from agencies concerned with Latin American affairs supplement the basic information supplied by the regular members of the Institute staff. Included among the subjects studied are: Geographic setting and influences, pre-European cultures, exploration and settlement, independence, the Monroe Doctrine, economic colonialism, Pan-Americanism, present-day Latin America, United States relations with Latin America, and Latin America and the United Nations.

This course is designed primarily for teachers who feel the need for accurate background information and improved teaching materials and techniques for use in their classrooms. In addition to conventional lectures, this course features the showing of the latest films on Latin America, field trips to the United Nations and Latin American centers of New York, exhibits of materials suitable for teaching, demonstrations of teaching techniques and materials, folk singing, and folk dances suitable for classroom use.

Credit: 3 semester-hours

SOCIAL STUDIES 490F. Russia in the Modern World

The purpose of this course is to give the students an opportunity to study the development of modern Russia and the impact of its emergence as a world power. Particular attention is devoted to the role played by the geographical and historical forces that influenced Soviet foreign policy. The course meets three hours a day for each of fifteen days. Visiting lecturers from agencies concerned with Russian affairs supplement the basic information supplied by the regular members of the Institute staff. Included among the topics studied are: The nature and source of Soviet power, land and people of the Soviet Union, the role of the Communist Party, United States relations with Russia, Russia in the United Nations, Russian interest in the Far East and the Middle East, and the Cold War.

This course is designed primarily for teachers who feel the need for accurate background information and improved teaching materials and techniques for use in their classrooms. In addition to conventional lectures, this course features the showing of the latest films on the Soviet Union, field trips to New York City, exhibits of materials suitable for classroom use and demonstrations of teaching techniques.

Credit: 3 semester-hours

SOCIAL STUDIES 491A. Workshop in Citizenship Education, Part I

The purpose of this workship is to present a study of what has been done in some of the many projects in citizenship education throughout the country. Special emphasis is placed on the plans and materials developed by the Citizenship Education Project now being conducted by Teachers College, Columbia University, and financed by the Carnegie Corporation. Montclair has been one of the eight teachers colleges cooperating in this project, and the College High School is now a co-operating school. Consultants are invited in as needed. Attention is given to programs and practices already in use in the schools, and advantage is taken of the state-wide project in collecting from the schools experiences in education for character and citizenship. New means for citizenship education are sought and methods of evaluation are reviewed. Experience in the group processes essential to democratic action is provided. Each participant in the workshop works on actual plans for carrying out such education in the school and the classroom.

SOCIAL STUDIES 491B. Workshop in Citizenship Education, Part II

Membership in this workshop course is limited to those who have completed SOCIAL STUDIES 491A, and participants in this advanced workshop meet and work with the members of the SOCIAL STUDIES 491A workshop. On the basis of previous experience, each member of the SOCIAL STUDIES 491B group is expected to work out several laboratory practices or similar projects for use in the classroom or the school.

Credit: 2 semester-hours

SOCIAL STUDIES 499. Introduction to Chinese Culture

A number of authorities introduce first-year students to the rise, growth, and maturing of Chinese civilization, as well as to the fundamental problems of China today, including the conflict of ideologies. The course is given in twelve days. Each day there are two hours of lectures in the morning; after lunch a period of forty-five minutes is devoted to informal talks including further discussion on Chinese music, philosophy, Chinese school days, festivals, and calligraphy. Some time is also given to the singing of Chinese songs and the showing of motion pictures. During the two-hour workshop period the students prepare their projects, teaching units, and background material under the direction of faculty members.

Credit: 3 semester-hours

SOCIAL STUDIES 496A. The Chinese Society

This course is an intensive study of the formation of the Chinese people, their collective life, and the interaction of natural and human forces with the resultant social organizations from early times to the present. Particular emphasis is placed upon the development of social institutions, including the family, labor guilds, educational systems, and religious institutions, as well as their transformation and modernization under the impact of different forces from the West. There are twenty-four hours of lectures in the morning, and round-table discussion and library work in the afternoon.

Prerequisite: SOCIAL STUDIES 499, Introduction to Chinese Culture

Credit: 3 semester-hours

SOCIAL STUDIES 496B. China: The Evolution of a Nation

This course is an intensive study of the Chinese civilization, the forces underlying the development of the national character of the Chinese people, their contacts and conflicts with other peoples and cultures from historical times to the present. Because of its voluminous material, this course does not attempt to cover the whole span of Chinese history, but it is an integrated presentation of the maturing of the Chinese people as a nation. There are twenty-four hours of lectures in the morning, and round-table discussion and library work in the afternoon.

Prerequisite: SOCIAL STUDIES 499, Introduction to Chinese Culture

SOCIAL STUDIES 497. Chinese Philosophy

This course shows how the ancient philosophies, Confucianism, Taoism, Buddhism, Mohism, can be applied to the China of today and how they affect modern Chinese thought. There are twenty-four hours of lectures in the morning and round-table discussion and library work in the afternoon.

Prerequisite: SOCIAL STUDIES 499, Introduction to Chinese Culture, or an equivalent course in philosophy

Credit: 3 semester-hours

SOCIAL STUDIES 498. China and the Far East

This course presents to the student a factual and up-to-date analysis of the forces that are operating in the Far East and shows how these forces may affect future developments in this critical area of the world. China, with its people as a key area in the Far East, is interpreted in terms of current economic, political, and cultural developments. Recognized experts from the various countries in the Far East present problems from the standpoint of their experience and background. The course itself is synthesized by a course director who is a serious student of China and its neighbors.

Credit: 3 semester-hours

FINE ARTS 414. History of Chinese Art

For a description of this course, see page 92.

Credit: 3 semester-hours

ENGLISH 459. A Survey of Great Chinese Literature

For a description of this course, see page 80.

Credit: 3 semester-hours

THE DEPARTMENT OF GEOGRAPHY

The world consists of regions. Each world region has its own personality, its own set of significant conditions. A kirghiz nomad, an Illinois farmer, a Norwegian fisherman, an Amazonian rubber gatherer, a Canadian lumberjack, and a Chinese junk man—each lives in a world whose conditions and outlook are unlike the others. To interpret those earth qualities is the distinctive function of modern geography. Geography in its dual role as a natural and social science thus becomes a task of interpretation. It has a field cultivated but little by the other natural and social sciences. It has a point of view which is needed in any attempt to analyze modern civilization.

Nations today must be considered as a part of one great family and can no longer be treated as totally separate units—whatever happens in one corner of the earth is now of interest to the remainder of the world. It is not enough to know that tea is produced in China and the physical and economic reasons why;

it is also necessary to realize that the status of the industry there may be reflected in the price of hogs in the corn belt of the United States.

Tariffs and sectionalism are closely related to geographic and industrial conditions—New England wants a tariff on clothes and shoes to protect her textile mills and shoe factories, the wool growers of Ohio want a tariff on raw wool, Pennsylvania wants a tariff on coal, the beet sugar interests of the United States demand a tariff on sugar, and western fruit growers call for a tariff on their products.

The science of geography provides an explanation of many things, a basis of understanding valuable in every walk of life as well as a vital part of training for citizenship, and an opportunity for teaching the good relations of nations with each other. A knowledge of the geography of the world should give people respect, sympathy, and understanding for each other. Almost every day people are called upon to meet and settle some problem that requires geographic knowledge. The agriculturist, the merchant, the mariner, the aviator, the manufacturer, the politician, the lawyer, the doctor all should be well grounded in this field. Aside from its application to the immediate problems of business and political life, geography has cultural value by making man at home with human relations and with his relations to nature by apprehending its beauty and grandeur.

Climate and weather enter deeply into the whole fabric of human life. Climate pursues us, lives with us, and conditions our activities, the vigor of our bodies, and the tone of our spirits, by day and by night, season by season, and year by year. The distribution of temperature and rainfall affects every human being from his birth to his death, controlling activity in agriculture, manufacturing, communication, transportation; it also governs the food, raiment, and home of man.

Courses in the Department of Geography are arranged not only to prepare teachers of geography for the junior and senior high schools, but also to: (1) contribute to the preparation of science and other teachers; (2) serve as fundamental courses for the student of history, economics, and related subjects; (3) afford, as a part of general education, a broad cultural background for an understanding of world affairs; and (4) furnish a basis for enjoyment of recreation and travel.

For geographical study, the State Teachers College at Montclair has an ideal location. Almost every kind of rock and mineral-type known to man is to be found here. There is an astounding diversity of geographical structure and physiographic formation. The story of glaciation is written across the whole area of Northern New Jersey. Contrasted types of stream, valley, and topography are at one's command. Only a few miles to the east lies the coast line with its wealth of shore-line features, while to the west appear the folded ranges of the Appalachians and the Delaware Water Gap, one of the notable works of nature. New York City, with its millions of people from all parts of the world, its splendid harbor, its large and well-equipped libraries and museums, its weather bureau, and its enormous wealth of industry and lines of communication, is less than an hour's ride away.

SCIENCE 100C, The Earth Sciences, is required of all students.

GEOGRAPHY 201, 202, 301, and 302 constitute a minor in geography.

THE FIRST YEAR

The work of the first year in geography aims through a study of geographic principles to give the student an accurate conception of the subject as a field of scientific thought; to give an appreciation of the importance of geography in education; to serve as a unit of general culture; and to establish fundamental concepts of the subject that will be of value for further study of geography.

SCIENCE 100C. The Earth Sciences

For a description of this course, see page 48.

Credit: 2 semester-hours

THE SECOND YEAR

The courses for the sophomore year are arranged to give the students a thorough grounding in the physical background of the subject, and a development of geographic thinking that will aid them in clear reasoning and expression in working out the relationships of man to his natural environment. Also detailed regional studies of continental areas are introduced for the first time, and more thought is given to the professionalization of the subject matter.

GEOGRAPHY 201. Climatology

A consideration is given to the meterological elements, such as temperatures, pressures, winds, clouds, humidity, precipitation, and atmospheric dust which go to make up climates. In the treatment of the climate, the aim is to determine: (1) its characteristics, (2) its regional distribution, and (3) its significance to life activities. Attention is given to the operation and values of the Federal Weather Bureau. Throughout the course emphasis is placed upon the relationships of climate to human affairs.

Credit: 4 semester-hours

GEOGRAPHY 202. Geography of the Western Hemisphere

This course constitutes a detailed regional study of the continents of North America and South America. North America is treated first. It serves as an introduction to and a desirable foundation for the study of other continental areas. Emphasis is placed upon the human activities in relation to their natural environment, the commercial relations of the two continents with each other and with the world as a whole, and the possibility of further human utilization.

THE THIRD AND FOURTH YEARS

In the work for the junior and senior years there is continued emphasis upon the subject-matter in regional and economic geography necessary for teaching geography in the secondary schools. Also more attention is given to the professionalization of the subject-matter than in either of the previous years; that is, the techniques of presenting material, the use of geographical tools, and the problems of testing are dealt with in the treatment of the subject-matter in hand.

GEOGRAPHY 301. Geography of Eurasia

This course includes a consideration of the relief, climate, coastline, and marginal seas of Eurasia as a whole, to be followed by detailed regional studies of Europe and Asia respectively. Emphasis is given to the economic, social, and political activities of the people of Europe and Asia in their relation to the natural environment.

Credit: 4 semester-hours

GEOGRAPHY 302. Economic Geography

A comprehensive study is made of the influence of the natural environment upon the production, trade and utilization of the more important agricultural, mineral, forest, factory, and sea commodities; of the development of continental and ocean trade routes and trade regions of the world. The course affords preparation for the teaching of world geography and economic geography in secondary schools.

Credit: 4 semester-hours

GEOGRAPHY 303. Regional Commercial Geography of the Americas

This course comprises a regional study of the physical geographic factors which contribute to the production, distribution, and marketing of the resources of the western hemisphere. The location of trade routes and commerce centers in relation to the physical features of the earth's surface is considered. Emphasis is placed on the main industries resulting from the utilization of the natural resources, on the recent trends and shift of industries, and the world position of the nations of the Americas in the production and exchange of commodities.

Credit: 3 semester-hours

OTHER COURSES IN GEOGRAPHY

GEOGRAPHY 406. Geology

This course deals with the earth and its geographic, stratigraphic, and structural development throughout geologic time; the record of the evolution of life as interpreted through a study of rocks and fossils.

GEOGRAPHY 408A and 408B. Political Geography

This course deals with the geographic conditions influencing the significant changes in the political divisions of the world. Emphasis is placed on geographic factors influencing racial, religious, commercial, and political adjustment between nations.

Credit: 2 semester-hours each

GEOGRAPHY 409. Economic Geography of the British Isles

A comprehensive treatment of the resources of the British Isles is given, and the influence of the natural environment upon the utilization of those resources in the economic, social, and political development of the British Empire is evaluated.

Credit: 2 semester-hours

GEOGRAPHY 410. Economic Geography of Caribbean America

This is a study and interpretation of the major and important minor economic areas of Caribbean America in relation to the natural environment. Attention is also given to the historical factors which have played a part in the economic and social life of the people.

Credit: 2 semester-hours

GEOGRAPHY 411. Geographic Influences in American History

A study is made of the geographic factors influencing the development of social, economic, and political life in America.

Credit: 2 semester-hours

GEOGRAPHY 412. Geography of Africa, Australia, and New Zealand

A study is made of the activities of the people of Africa, Australia, and New Zealand in relation to their natural environment. Emphasis is placed upon the location, relief, and climate of the continents. Attention is given to the influence of geographic factors upon the post-war adjustments and the possible future relations of these countries with the United States.

Credit: 2 semester-hours

GEOGRAPHY 413. Economic Geography of South America

This course constitutes a study of the influence of the natural environment upon production and utilization of resources in the economic, social, and political development of the various nations of South America.

Credit: 2 semester-hours

GEOGRAPHY 414A and 414B. Advanced Economic Geography

This course is a study of the influence of the physical environment upon the production of, the trade in, and the utilization of the important agricultural, forest, mineral, and sea products, and the manufactured commodities of the world.

GEOGRAPHY 416. Conservation of Natural Resources

This course includes a study of the natural resources of the United States, their past and present exploitation, their influence on the development of the nation, their conservation and future use.

Credit: 2 semester-hours

GEOGRAPHY 418. Regional Geography of North America

This course constitutes a detailed regional treatment of the continent of North America. Emphasis is placed upon the human activities of the various regions in relation to their natural environment and the relations of the regions to each other. Attention is given to the techniques of presenting the material and the use of geographic tools in the treatment of the subject-matter.

Credit: 2 semester-hours

GEOGRAPHY 419. Economic Geography of the Union of Soviet Socialist Republics

This course is designed to give a comprehensive and objective treatment of Soviet Russia's natural resources and industrial potential in relation to the geographic environment. Special emphasis is given to the formative periods of Russia's industry to show the significance of and the continuous operation of geographical factors in the economic development of Russia.

Credit: 2 semester-hours

GEOGRAPHY 420. Field Geography and Conservation

This course constitutes a study of the relation between relief features of northern New Jersey, the location of natural resources, and the way in which land use and population distribution follow these patterns. Emphasis is given to the reading and interpretation of topographical maps and aerial photographs and to a study of the United States Geological and Soil Surveys of this region. By means of an actual land-use survey the student comes to appreciate the problems of conservation as they grow out of man's use of natural resources.

Credit: 2 semester-hours

THE DEPARTMENT OF HEALTH AND PHYSICAL EDUCATION

The Department serves the College by offering an activity program that is open to all students on an extra-curricular basis, a required activity program for freshmen and sophomores, and a curriculum that will lead to certification for teaching physical education. Certain courses are offered in health education for those who wish to elect them.

The Required Program

HEALTH EDUCATION 100. Healthful Living

For a description of this course, see page 48.

PHYSICAL EDUCATION 100A & B. Physical Education Activities

The work of the freshman year consists of an orientation program whereby the students are provided with an opportunity to become acquainted with a variety of team, dual, and individual sports. Special classes in remedial physical education, dancing, and swimming are also offered.

Credit: 1/2 semester-hour each

PHYSICAL EDUCATION 200 A & B. Physical Education Activities

The work of the sophomore year permits the student to select within a given pattern team, dual, and individual sports. Special classes in remedial physical education, dancing, and swimming are also offered.

Credit: ½ semester-hour each

Each student is given a yearly health examination by a physician who determines the fitness of the student to participate in the general program.

Regulation costume is required of all students.

HEALTH EDUCATION

HEALTH EDUCATION 207. Safety Education

This course is designed to prepare teachers for a relatively new field in education. Opportunities are presented for acquiring knowledges and skills related to safety in the school buildings, on the school grounds, and going to and from school.

Credit: 2 semester-hours

HEALTH EDUCATION 401. Methods and Materials in Health Education

This course prepares the teacher to assume the responsibility for organizing and conducting a program of health instruction. The coordination of health with other subject-matter fields and the evaluation of textbooks and audio-visual materials are given special consideration.

Credit: 2 semester-hours

HEALTH EDUCATION 407. Prevention and Care of Athletic Injuries

This is a lecture and laboratory course designed to acquaint the student with ways to prevent and care for the common injuries sustained in athletics. Attention is given to sprains, strains, bruises, burns, and fractures. The responsibility of the coach in caring for injuries is emphasized.

HEALTH EDUCATION 408. Driver Education

PART I

This part consists of a minimum of 40 hours of class recitations and discussions for which home reading and study have been assigned. The following topics are included: (1) history and development of driver education and training programs; (2) objectives of driver education; (3) local, state, and national traffic-safety programs; (4) driver qualifications; (5) psychophysical testing; (6) curricular content of school courses in driver education and training; (7) construction, operation, and maintenance of automobiles; (8) traffic laws and driver licensing; (9) traffic engineering; (10) pedestrian education and protection; (11) equipment for teaching driver education; (12) liability, costs, and insurance; (13) planning driver education as a part of the daily program of the high school; (14) public relations; (15) records and reports; and (16) visual aids in teaching driver education.

PART II

This part consists of a minimum of 20 hours devoted to the following: (1) behind-the-wheel instruction; (2) demonstrations and student-teacher practice in the car; and (3) road tests in traffic. Home reading and study are required in preparation for these projects.

Prerequisite: Driver's license with three years of driving experience with satisfactory driving record.

Credit: 3 semester-hours

HEALTH EDUCATION 411. School Health Services

The student is familiarized with the health services available in the school. The part which the teacher plays in coordinating his activities with the school medical staff is emphasized.

Credit: 2 semester-hours

The Minor Program

With the required courses in health and physical education as prerequisites additional courses are offered which will prepare teachers of physical education. On successful completion of the curriculum the student is eligible to be certified to teach physical education in junior and senior high school.

Students interested in the field should arrange for an appointment with a division head of the department before undertaking the program.

It is suggested that students minoring in the department should obtain outside experience by working either in schools, playgrounds, camps, or recreation centers.

PHYSICAL EDUCATION

The curriculum has been organized for men and women who may desire to teach physical education, to coach athletic teams, or to assume leadership in physical education activities in school, camp, club, or playground.

Students who are minors are expected to assist in administering the physical education and sports program of the College and the College High School. While it is not a prerequisite that the men be members of the College athletic teams, or that the women participate in extra-curricular sports and Dance Club, such participation is highly recommended.

The following courses are required for all physical-education minors: Health Education 100; Physical Education 100A, 100B, 200A, 200B, 201, 202, 206, 405, and 409; Physical Education M307 and M308 for men; Physical Education W307 W308, and 314 for women. The following courses are elective: Health Education 407; and Physical Education 203, 313, 410. Physical-education minors must elect at least one of the foregoing electives in order to complete the physical-education minor. Students in the Physical Education Department, as well as other qualified individuals, may elect these courses upon approval by the Department Head.

PHYSICAL EDUCATION 201. Physiology of Exercise

This course deals with the physiological effects of activity upon the human organism; the reaction of exercises of speed, strength, and endurance upon the circulatory, respiratory, and muscular systems; and the causes of fatigue, staleness, and exhaustion. The effects of alcohol, stimulants, and ergogenic aids on the body are considered.

Credit: 2 semester-hours

PHYSICAL EDUCATION 202. History and Principles of Physical Education

This course considers the scientific foundations of physical education, aims and objectives, and the place of physical education in the educational program. Reference is given to skill, interpretative, and emotional development, and to individual adjustment to standards.

Credit: 2 semester-hours

PHYSICAL EDUCATION 203. Individual and Dual Sports

This course is designed to give the student experience and practice in a variety of individual and dual sports. It stresses fundamental techniques used in the teaching of golf, tennis, archery, badminton, bowling, and other dual activities for men and women.

This course meets for three hours weekly and is credited on a laboratory basis.

PHYSICAL EDUCATION 206. Methods of Teaching Games

In this course the student is taught the rules, techniques, and methods of playing and teaching games in junior and senior high school.

Credit: 2 semester-hours

PHYSICAL EDUCATION M307-308. Methods of Coaching and Officiating

The offensive and defensive strategy of the various varsity sports are discussed in season. A knowledge of the rules and techniques of officiating the various sports, together with actual experience in coaching and officiating are required.

This course meets for four hours weekly and is credited on a laboratory basis. It runs for two semesters.

Credit: 3 semester-hours each

PHYSICAL EDUCATION W307-308. Methods in Sports for Women

The purpose of this course is to present the skill techniques and coaching and officiating methods essential for successful teaching of girls' sports in high school. Such active participation as is necessary is required.

This course meets for three hours weekly and is credited on a laboratory basis. It runs for two semesters.

Credit: 2 semester-hours each

PHYSICAL EDUCATION 313. Methods of Teaching Folk and Square Dancing

This course is designed to familiarize the prospective teacher with the recreational, aesthetic, and physical values of folk and square dancing. Students learn how to teach the elements of these dances, how to call and to lead, where to secure recordings and dance descriptions. Dances suitable for various age levels and degrees of competence are included.

Credit: 2 semester-hours

PHYSICAL EDUCATION 314. Theory and Practice of Modern Dance

This elective course provides experience in group and individual activity in both techniques and choreography. Through discussion the student develops an appreciation of the dance as an art form. The course is open both to men and women.

Credit: 2 semester-hours

PHYSICAL EDUCATION 405. Methods and Materials of Physical Education in the Secondary Schools

Analysis of the program of physical education in the secondary school; criteria for the selection and grade placement of activity; consideration of method and teaching techniques; construction of teaching units and lesson plans; and prob-

lems relating to program planning, time allotment, facilities, sources of material, and program evaluation constitute the content of this course.

Credit: 2 semester-hours

PHYSICAL EDUCATION 409. Organization and Administration of Physical Education

The details of organizing the units of the physical-education program are discussed. Various topics, such as legislation, financing, curriculum construction, grading, excuses, plant facilities, supplies and equipment and office management are considered.

Credit: 2 semester-hours

PHYSICAL EDUCATION 410. Water Safety and First Aid

This course includes intensive instruction in swimming, diving, water sports, boating, canoeing, water safety, and first aid. Students can qualify for Red Cross certification during this course.





MONTCLAIR

NEW JERSEY STATE TEACHERS COLLEGE AT MONTCLAIR

EHRARY OF

GRADUATE BULLETIN



BULLETIN

OF THE

New Jersey State Teachers College at Montclair

GRADUATE DIVISION



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GRADUATE FACULTY

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Assistant Professor of English and Education
*Leave of absence for military service.

Graduate Committee

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DAVID R. DAVIS
W. PAUL HAMILTON
RUFUS D. REED
ELIZABETH S. FAVOR, Secretary

GENERAL INFORMATION

HISTORY

In 1908 the Montclair State Teachers College first began its teacher-education program as a two-vear Normal School. In 1927, by act of the State Board of Education, it was changed to a State Teachers College with four-year curricula leading to a Bachelor of Arts degree and certification to teach in the secondary schools of the State. That the College might better serve teachers in service, extension courses were instituted in 1929 and summer sessions in 1930. The fact that hundreds of teachers in service registered in these programs annually shows the wisdom of the State Department in instituting them. The majority of these teachers held Bachelor's degrees, and they wished to continue their preparation and receive graduate credit for their work. They, therefore, requested that the College offer courses for graduate credit. To meet this demand, the Commissioner of Education recommended and the State Board of Education voted in June, 1932, that such work be offered and the College be empowered to grant the degree of Master of Arts, Graduate courses were first offered at the State Teachers College at Montclair in the summer of 1932 and have been offered in all regular and summer sessions since. There are now more than six hundred students matriculated in the Graduate Division

LOCATION

The College is located on the northern edge of Upper Montclair about three miles from Montclair Center. The campus is on the boundary line between Essex and Passaic Counties. Valley Road, the main thoroughfare between Montclair and Paterson, bounds the campus on the east; to the west is the ridge of Watchung Mountain; to the north are Great Notch and Paterson; to the south, Montclair, Newark, and the Oranges.

The College may be reached by the Lackawanna Railroad to Montclair, thence by bus to the campus; by the Erie Railroad to Montclair Heights Station; and by bus from most of the cities in Northeastern New Jersey.

LIBRARY

A library of more than 48,000 volumes is conveniently situated on the main floor of the College Hall. This includes the following special collections: the Howe Collection of Organ Music; the Mark Andrews Music Library; the Webster Memorial Collection of Modern Poetry; the Finley Collection of Science Textbooks, which has been augmented by early textbooks from other sources; the Carnegie Secondary Art Set of books and pictures. In addition, a Textbook Exhibit of more than 2,500 volumes, and a collection of courses of study from states, counties, towns, and cities throughout the country are valuable aids to teachers in training as well as to teachers in service.

Approximately 200 periodicals are received currently. In addition, the library maintains files of pictures, pamphlets and clippings, classified by subject. All of the library's holdings, with the exception of the Webster Memorial Collection, are available for loan to members of the faculty and the student body, and to graduates and former students.

LIVING ACCOMMODATIONS

During the College year graduate students are accommodated in the dormitories whenever possible. The rate for the Summer Sessions is \$13.50 a week including room, breakfast and dinner. These charges are subject to revision.

ADMINISTRATION

The graduate program of the College is administered with the assistance of two college committees: the Graduate Committee appointed by the President of the College, and the Administrative Council which consists of the President, the Dean of Instruction, the Director of Admissions, the Chairman of the Graduate Committee, the Director of Personnel and Guidance, and the heads of the major departments. The Chairman of the Graduate Committee assists in the administration of the Graduate Division.

PURPOSES

The New Jersey State Teachers College at Montclair is a professional school devoted primarily to the interests of secondary education. This definite objective is the controlling factor in the development of the curricula, teaching procedures, extra-curricular activities, and college spirit, and tends to unify all the activities of the college—professional, cultural, and social.

Graduate courses are organized to serve the purposes of two groups of students:

Those who wish to matriculate for the degree of Master of Arts: Graduates of liberal arts and professional colleges.

Secondary teachers, supervisors, principals, and other school administrators.

Those who do not wish to matriculate for the degree:

Students who hold graduate degrees but wish to continue their professional preparation.

College graduates who wish to take courses leading toward secondary school certification.

Students who are matriculated in other colleges and universities and plan to transfer their credits.

Students taking courses for cultural purposes without reference to credit.

ORGANIZATION

The work is so organized as to meet the needs of those who wish to do full-time work and of those who are teaching and wish to take courses in the late afternoon, evening, or on Saturday morning. The courses in the Part-Time and Extension Division and Summer Sessions are given by members of the college staff and are granted resident credit. It is thus possible for a teacher in service to earn the Master's degree without taking a leave of absence from his teaching position.

In order to meet the needs of those candidates lacking secondary certification, many of the professional courses required for certification in the State of New Jersey can be taken on the graduate level. Students holding Bachelors' degrees from other colleges are permitted to matriculate for the Master's degree here prior to obtaining certification; but by the time the degree is to be conferred, they must have qualified for a teaching certificate. In all major departments except that of the Department of Integration this must be a secondary teaching certificate. Students who are working for certification are, therefore, advised to write to the Secretary of the State Board of Examiners, 175 West State Street, Trenton, New Jersey, submitting a transcript of all their previous college work asking for an evaluation as to what they are lacking for certification.

Inasmuch as no graduate credit is given for supervised student teaching, graduate students from liberal arts colleges spend, as a rule, at least a college year and a summer term to meet the State requirements for certification and the academic requirements for the Master's degree. The time required depends upon the character and amount of undergraduate credits,

STUDENT TEACHING

Graduates of other colleges who wish to do their student teaching through the New Jersey State Teachers College at Montclair should obtain from the Integration Office the mimeographed statement outlining the conditions under which it can be done.

MATRICULATION

The steps in the matriculation process are as follows:

- 1. The candidate secures from the Graduate Office an application which must be completed and returned to that office.
- 2. The candidate will have his college send official transcripts of all undergraduate credits (if the applicant is not a graduate of Montclair), to the Chairman of the Graduate Committee.
- 3. After the application and transcripts have been received in the Graduate Office, the candidate will be invited to confer with the Chairman of the Graduate Committee.
- 4. The candidate will next confer with the graduate adviser in the department in which he expects to do his work, and the adviser will develop a program of courses with him.
- 5. The candidate will then have a final brief conference with the Chairman of the Graduate Committee. Following this, the candidate will be advised in writing of the decision of the Graduate Committee and will be furnished with a statement of the work to be completed.

Final action on all applicants is vested in the Administrative Council.

Announcements are made with the offerings of courses each semester as to when the departmental advisers and the Chairman of the Graduate Committee may be consulted.

ADVANCED CREDITS

For graduates of institutions other than the New Jersey State Teachers Colleges, a minimum of thirty-two semester-hours of residence work is required. In the case of graduates of the New Jersey State Teachers Colleges a maximum of eight semester-hours of graduate work from other accredited institutions may be offered toward the Master's degree.

In the cases of students who are eligible to transfer credits from other institutions of work done prior to matriculation, official transcripts of these credits must be submitted for consideration to the Graduate Committee on Admissions. Candidates who are eligible to take work at other graduate schools and who desire to do so after matriculation must first secure written permission from the head of the department concerned at Montelair and from the Chairman of the Graduate Committee, if the credits so gained are to be applied toward the Master's degree.

Not more than eight semester-hours of graduate credit will be granted for work taken at Montclair prior to matriculation. For this reason, candidates should apply for matriculation before the completion of that amount of work.

STUDENT LOAD

Graduate work should involve careful and intensive study with ample time to explore areas which may warrant further study.

Twelve to sixteen hours of work per semester is considered a fulltime program for the graduate student in residence.

For teachers employed full time, six semester-hours of work in any one semester shall be the maximum load with four semester-hours being recommended.

In the regular six-week summer session, the maximum load shall be eight semester-hours. The Graduate Committee strongly recommends that the student consider six semester-hours of work a full program.

REQUIREMENTS FOR A.M. DEGREE

Thirty-two semester-hours of graduate credit are required for the Master of Arts degree.

Each student selects a major field in which he must complete such courses as are prescribed.

Each department except that of Integration requires at least thirty semester-hours of credit in its field as a prerequisite to matriculation.

After matriculation, the Integration Department requires twenty-four semester-hours in its field; all other departments require a minimum of eighteen semester-hours.

For graduates of teachers colleges, at least six semester-hours of the required total must be taken in the Department of Integration. The amount of such work required of graduates of other colleges is determined by the number of courses needed for certification. Integration 503 is required of all students matriculated in the Graduate Division.

Four of the total credits may be satisfied by a thesis which meets the approval of the Graduate Committee. Students not submitting a thesis take a departmental examination, which may be both written and oral. This examination is given by the department in which the student does his major work. No academic credit is given for this examination.

An average of "B" or better is required for work submitted for the Master's degree. No credit is given for work below "C."

With the exception of those graduates majoring in Administration and Supervision or in Personnel and Guidance, a prerequisite to the conferment of the degree is the fulfillment of all State requirements for certification to teach the major subject in the high school. In the Integration Department either an elementary or a secondary teaching certificate is prerequisite to the conferment of the degree.

Students who desire to meet the State requirement in Supervised Student Teaching must register for that course with the Assistant in Graduate Personnel.

Work for the degree must be completed within five years of the date of matriculation. Candidates must file with the Registrar an application for conferment of the degree before November 30 of the college year in which the work is to be completed. Application blanks for this purpose may be secured from the Registrar. The burden of responsibility for the request rests with the candidate. This is of special significance to the teacher in service who may have distributed the graduate work over four or five years.

GENERAL RESTRICTIONS

No credit is granted for:

- 1. Correspondence work.
- 2. Junior-college courses.
- 3. Graduate courses with mark below "C."
- 4. Supervised teaching.
- 5. More than eight semester-hours of graduate credit taken at Montclair prior to matriculation.
- 6. The comprehensive departmental examination.
- 7. More than six semester-hours of graduate credit earned in extension (off-campus) courses.
- 8. Graduate work taken elsewhere unless the student is a graduate of one of the New Jersey State Teachers Colleges, and in such cases not more than eight points.

PEES AND SERVICE CHARGES

Eight dollars (\$8.00) per semester-hour to those who have not yet taught regularly as public school teachers.

Eleven dollars (\$11.00) per semester-hour to those who are teaching or who have taught regularly as public school teachers.

Thirteen dollars (\$13.00) per semester-hour to non-residents of the State of New Jersey.

Diploma, three dollars (\$3.00).

Registration Service Charge, one dollar (\$1.00) per semester.

Late Registration Service Charge, two dollars (\$2.00) collected on all registrations made subsequent to the days set aside for registration each semester.

Supervised Student Teaching (if required), forty-eight dollars (\$48.00).

A Laboratory Service Charge is made in connection with each of the laboratory courses.

Dormitory fees including room, breakfast and dinner for a summer session, thirteen and one-half dollars (\$13.50) a week.

These charges are subject to revision.

All charges except the diploma charge are payable during the registration period.

THE MASTER'S THESIS

Students writing a thesis must register with the Chairman of the Graduate Committee for course Graduate 500, Master's Thesis.

The following information is of aid to students submitting Master's theses:

a. Choice of Topic and Plan of Research.

Each student submitting a thesis shall discuss the choice of topic and the plan for doing the work with the head of the department in which he is specializing. As soon as he has chosen the topic and has made tentative plans for his research, the head of the department appoints a sponsor who acts as his guide.

b. Presentation of Plan.

Each student submitting a thesis shall present in detail his plan of research and thesis to his sponsor, the Graduate Committee, the head of the department concerned, and the Dean of Instruction.

c. Mechanics of the Thesis.

Standard for such mechanical details as paging, diagrams, references, bibliography, titles, etc., are set by the Graduate Committee. The Librarian shall be consulted as to bibliographic form.

d. Submitting the Thesis.

As soon as the thesis is completed, a typewritten copy is submitted to the sponsor. If he approves it, he submits it to the Reading Committee at a date no later than six weeks before the date of graduation. If approved by the Reading Committee, it is returned to the candidate, who makes such changes as have been recommended and presents three typewritten copies to the head of the department at least two weeks before the date of graduation. Final acceptance rests with the Administrative Council.

e. An acceptable thesis shall show evidence that:

- 1. The candidate has comprehended the essentials of his problem, followed a well-organized plan of work, and offered satisfactory solutions.
- 2. The candidate has made an independent and intensive study of his problem.
- 3. The candidate has made a comprehensive study of the literature of his subject.
- 4. The candidate's conclusions are justified by his findings.
- 5. The candidate has a practical working knowledge of research methods.
- 6. The thesis is not a duplicate of a similar study.
- 7. The data involves a sufficient fund of information to make the findings significant.
- 8. The thesis is of definite value to the teaching profession.

FIELDS OF WORK

Majors in graduate work are offered in the fields of Administration and Supervision, Biology, Business Education, English, Mathematics, Personnel and Guidance, Physical Science, Science, and Social Studies. In each curriculum there is a core of educational courses and major subject-matter courses. The amount of each type depends on the candidate's undergraduate work and is determined by the student's graduate committee. The work in Administration and Supervision and in Personnel and Guidance is limited largely to professional courses in order to meet the State certification requirements.

Students choosing a major field of study at the graduate level should keep in mind that certain experience requirements are needed in the fields of Administration and Supervision and Personnel and Guidance. Enrollment in certain Integration courses is limited to those who are having or who have had actual teaching experience. For details see page 41.

DEPARTMENT OF BUSINESS EDUCATION

The graduate work in the Department of Business Education is designed to prepare teachers of business education for administrative, supervisory, specialized work or master teaching in the field of business education. In order to attain these objectives the candidate has an opportunity to supplement his undergraduate program and to explore advanced areas of work, this work to be determined in accordance with the individual background, experience, and achievement of the candidate.

Graduate work toward the Master of Arts degree in Business Education presupposes the completion of an undergraduate major in business education, or its equivalent. The undergraduate major is based on the requirements as established by the New Jersey State Board of Education. For further details see the undergraduate bulletin.

In lieu of four of the thirty-two semester-hours of credit required for the Master of Arts degree, the candidate may write a thesis giving the results of some study in the field of business education or its teaching. This study may be made only after consultation with the Head of the Business Education Department. The study is completed under the sponsorship of a member of the Business Education Department faculty. Plans should be made to have such a study in its final form and approved by the Department of Business Education by May 1st of the year in which the degree is expected to be conferred. The thesis may be substituted only for courses listed under Division III as described under the course requirements.

All candidates for the Master of Arts degree in Business Education must pass a comprehensive examination before they are granted the degree. This examination is given the first Saturday in April and the last Saturday in July for those candidates anticipating graduation. It is general in nature and is intended to test the candidate's maturity of thought with respect to business education and the teaching of business education.

COURSE REQUIREMENTS

The basic plan of the program is made up of four divisions with graduate courses bearing 500 or 600 numbers and senior-graduate courses bearing 400 numbers.

- Division I. Required Professionalized Business Education Courses (6 sem. hrs.)
 - B. E. 502. Principles and Problems of Business Education 2 s.h.
 - B. E. 503. Administration and Supervision of Business Education 2 s. h.
 - B. E. 504. Improvement of Instruction in Business Education
- Division II. Required Seminar in Economics (6 sem. hrs.)
 - B. E. 602. Seminar in Economics 6 s. h.
- Division III. Elective Subject Matter Courses (14 sem. hrs.)

These may be selected from those courses listed below:

- Group A—Business Education Department Courses (8 to 14 s. h.)
- B. E. 402, 404, 405, 406, 407A, 407B, 408, 409, 410A, 410B, 411, 412, 413, 414, 415, 420
- B. E. 511, 512, 513, 514A, 514B, 515A, 515B, 516, 517A, 517B, 518, 519A, 519B
- Group B—Geography, Mathematics, and Social Studies Department Courses (up to 6 s. h.)

Other courses may be substituted for those in this group with the permission of the Head of the Business Education Department. Such substitution will be permitted only if it contributes to what may be considered the basic training requirements of a business education teacher.

- Geog. 409, 410, 413, 414A, 414B, 503, 504, 509
- Math. 410, 505
- Soc. St. 413, 446, 450, 454, 455, 456, 517, 522, 523, 524
- Division IV. Integration Department Courses (6 sem. hrs.)
 - Group A—(2 sem. hrs. required)
 - Int. 503. Methods and Instruments of Research

2 s.h.

- Group B—(4 sem. hrs. of elective credits—Select two courses)
 - Int. 408, 409, 500A, 500B, 500C, 504A, 505, 521A, 521B, 535A, 536, 537, 538, 549, 551, 553

For information relative to eligibility for enrollment in Integration courses, see regulations outlined on page 41.

THE GRADUATE COURSES

Business Education 502. Principles and Problems of Business Education

The purpose of this course is to survey the basic principles and practices of business education. Among the topics considered are: the high school business program, developing courses of study, factors in curriculum construction, attitudes of management and labor toward education, and the relationship of general education to business education.

Credit: 2 semester-hours

Business Education 503. Administration and Supervision of Business Education

This course offers an opportunity to study the problems of organizing, directing, and supervising business education programs. Such matters as the functions of the administrator and supervisor of business education, textbook selection, teacher selection, testing programs, conferences, and equipment and layout are considered.

Credit: 2 semester-hours

Business Education 504. Improvement of Instruction in Business Education

This course seeks to bring together business education teachers regardless of subject matter fields to consider common problems involving general subject matter and methods of instruction including visual and auditory aids. It also offers opportunity for an individual to investigate and evaluate materials and methods in specific subject matter areas.

Credit: 2 semester-hours

Business Education 511. Auditing

This course seeks to develop the meaning and techniques of auditing procedure. It includes practice in the fundamental mechanics of auditing as well as in the making of the formal report on an audit.

Prerequisite: 8 semester-hours of accounting

Business Education 512. Tax Accounting

The primary purpose of this course is to give a comprehensive picture of the Federal Tax structure, and to provide training in the application of basic principles to specific problems of the individual and corporation.

Prerequisite: 6 semester-hours of accounting

Credit: 2 semester-hours

Business Education 513. Labor Problems

This course provides an opportunity to study Federal and State Labor Laws and regulations. It also includes consideration of such matters as arbitration, collective bargaining, labor organizations, the labor contract, personnel management, and case problems.

Credit: 2 semester-hours

Business Education 514A. Marketing Processes I

The emphasis in this course centers about the application of the basic principles of marketing to specific case problems involving market institutions (brokers, auctions, exchanges, wholesalers, retailers, chains, cooperatives, and mail-order houses). Commodity marketing of farm products, industrial goods, and service industries are studied.

Credit: 2 semester-hours

Business Education 514B. Marketing Processes II

This course is a continuation of 514A, but course 514A is not a prerequisite. Some of the topics are: margins and expenses, turnover, market research, marketing policies, finance and credit policies, government regulations and competition. The case-problem approach is used predominantly.

Credit: 2 semester-hours

Business Education 515A. Textiles I

This course is important for its consumer and technical values. It develops selling points for textiles by furnishing a great deal of product information. Each student learns to classify and recognize various fabrics and their weaves.

Credit: 2 semester-hours

Business Education 515B. Textiles II

This course is a continuation of 515A, but course 515A is not a prerequisite. Emphasis is placed on the selection of appropriate fabrics for various types of clothing and for home furnishings including rugs.

Business Education 516. Business Organization and Management II

The problem approach is used in this advanced course in considering such topics as ownership, finances, location and layouts, purchasing personnel, and managerial controls.

Credit: 2 semester-hours

BUSINESS EDUCATION 517A. Advanced Business Law Cases I

This course presupposes a knowledge of the basic principles of business law. It is designed to furnish a broader understanding and background in areas requiring considerable training to be effective in the classroom. Cases are concerned with the topics of contracts, negotiable instruments, and insurance.

Credit: 2 semester-hours

Business Education 517B. Advanced Business Law Cases II

This advanced law course is a continuation of B. E. 517A, but course 517A is not a prerequisite. A basic knowledge of the principles of law is, however, required. The course includes a further study of law cases pertaining to bailments, carriers, sales, property, landlord and tenant, torts, and business crimes.

Credit: 2 semester-hours

Business Education 518. Advertising II

This advanced course in advertising offers an opportunity to study in some detail the uses of various advertising media such as newspapers, magazines, radio, television, and direct mail, and to evaluate their effectiveness in terms of campaigns.

Credit: 2 semester-hours

Business Education 519A. Advanced Accounting I

The content of this course emphasizes an intensive study of the items making up accounting statements and the principles of valuation and income determination. Problem solving is an integral part of the course. At least eight semester-hours of accounting are required as a prerequisite.

Credit: 2 semester-hours

Business Education 519B. Advanced Accounting II

This course is a continuation of B. E. 519A, but course 519A is not a prerequisite. Topics treated include consignments, agency and branch accounting, consolidations, receivership accounting, estate and trust accounting. At least eight semester-hours of accounting are required as a prerequisite.

BUSINESS EDUCATION 602. Seminar in Economics

This seminar is designed to meet the individual needs of the graduate student in business education or social studies by allowing him to pursue areas of work along economic lines in which he is not well versed. The program of participation consists of oral and written reports, developed through independent reading and individually directed field studies. In addition, group field trips are planned so as to give the student a first-hand knowledge of methods and practices of such organizations as banks, organized exchanges, manufacturing and marketing businesses. It is expected that the reports arising from these experiences will be in such form that they will be capable of being published or delivered as speeches before groups of people. An opportunity is given to view, evaluate, and work with, a variety of related visual and auditory aids.

Credit: 6 semester-hours

SENIOR-GRADUATE COURSES

For more complete descriptions of these courses see the undergraduate catalog.

Pusiness Education 401. The Teaching of Business Education

In this course a study is made of the history and development of business education, aims or objectives, human learning processes, lesson plans, teaching procedures, tests and measurements, and special helps for the teachers of business education.

Credit: 3 semester-hours

Business Education 402. Salesmanship

The principles of salesmanship in all types of selling activities are discussed. They are amplified and strengthened by individual selling demonstrations which require intensive study of the product to be sold in the demonstration and careful analysis of the desirable techniques for its sale. Visual aids and talks by salesmen, sales managers, and retail training directors add interest and purposefulness to the course.

Credit: 4 semester-hours

Business Education 404. Business Economics

This course deals with the business aspects of economics as related to contemporary and long range problems; operation and government control of public utilities; taxation, government finance, and labor and management problems.

BUSINESS EDUCATION 405. Marketing

Marketing is the process of transferring goods from the producer to the consumer. The functions involved in this process, the various channels of distribution, marketing institutions, and the costs of marketing are considered in this course.

Credit: 2 semester-hours

Business Education 406. Advertising I

This course aims to acquaint the student with the social and economic aspects of advertising so that a fair evaluation may be made of its worth as well as its undesirable aspects. Copy appeals, the writing of copy, advertising layouts, and the selection of appropriate types of media for various advertisements are considered.

Credit: 2 semester-hours

Business Education 407A. Consumer Education I

This is a general introductory course designed to meet current needs for greater economic efficiency as outlined by the National Educational Policies Commission. The general objective of this course is to help improve the ability of individuals to choose and to buy economic goods and services so that standards of living may be raised. Some of the topics considered are: personal budgeting; the general art of buymanship; the cooperative movement; consumer standards and grade labels; weights and measures; governmental and producer aids for consumers; the wise buying of shelter, insurance, and investments; the intelligent use of installment buying and other forms of credit; and a general survey of the agencies for educating the consumer.

Credit: 2 semester-hours

Business Education 407B. Consumer Education II

This course is a continuation of Business Education 407A, but course 407A is not a prerequisite. The emphasis is on the economics of consumption with particular attention given to an analysis of the factors and forces back of consumer demand, such as custom, fashion, and advertising.

Credit: 2 semester-hours

Business Education 408. Business Finance

This course deals with the processes involved in the financing of business organizations from the time of their inception and promotion, during operation and expansion, and during the period of reorganization.

Business Education 409. Money and Banking

This course provides a short historical survey of money and the evolution of banking, outside and within the United States. The organization of banks, the nature of their transactions, operations, and relations with other banks are considered. The functioning of the Federal Reserve System and the nature of the money markets are also examined.

Credit: 2 semester-hours

Business Education 410A and 410B. Cost Accounting

The course deals with the basic principles of modern cost findings and cost keeping, and endeavors to give a practical application of these principles to present-day conditions.

Credit: 2 semester-hours each

Business Education 411. Retail Store Management

The work of the store manager in retail store operation is fully explored in this course. The problems of organization and management as they are encountered in various types of retail stores are discussed.

Credit: 2 semester-hours

Business Education 412. Transportation and Communication

The student in this course becomes acquainted with the various kinds of services rendered by transportation and communication agencies. He also receives some insight as to how to use these services most efficiently; the practices of the agencies; how and why they are controlled by the government.

Credit: 2 semester-hours

Business Education 413. Business Statistics

This course supplements courses in accounting and social business studies and includes a study of the fundamentals of statistics as they apply particularly to business data gathered from financial statements, sales records and personnel records. Laboratory techniques are used in developing the methods of presentation.

Credit: 2 semester-hours

Business Education 414. Merchandising I

This course analyzes the problems of how, what, where, and when to buy; the terms of purchasing; tested receiving and marketing procedures; the mathematics of merchandising—setting the retail price, planning mark-up and mark-down, and inventory controls. It is designed to assist the teacher of the prospective or actual small businessman.

Business Education 415. Public Finance

This course aims to furnish a practical background for the student with respect to the nature and scope of governmental finance. Some of the areas studied are: the bases of taxation, income and expenses of government, and fiscal administration, including governmental budgets.

Credit: 2 semester-hours

Business Education 420. Field Studies in Business Education

This orientation course aims to introduce business education students, through direct observational techniques, to the realities of the business world. Six field trips are made in the New York Metropolitan Area which include visits to business organizations where the following types of business activity or relationships may be observed: production, merchandising and advertising, finance, transportation and communication, employer-employee relationships, government and business relationships. The field trips are supplemented by regular class sessions where discussions are held and visual aids presented to make the visits more meaningful.

DEPARTMENT OF ENGLISH

Graduate study in the Department of English is designed:

- 1. To increase the student's comprehension and appreciation of the literature of Great Britain and of the United States of America.
- 2. To introduce current materials and methods for improving instruction in English in the secondary school.
- 3. To show how language functions in individual expression and in social communication in the language arts; reading, writing, speaking, and listening.
- 4. To investigate recent experimentation and research in the teaching of English.

Graduate study leading to the Master's degree in English presupposes an undergraduate major in English of at least thirty semester-hours. Before matriculation, each candidate for the Master's degree secures from the Head of the Department an approved course outline requiring at least eighteen semester-hours in English at the senior-graduate level. Distribution of these courses is indicated upon the student's course outline.

All candidates for the Master's degree in English must pass a written comprehensive examination before the degree is awarded. Information concerning the examination may be secured from the Head of the Department.

The candidate may elect to write a thesis of professional value in the teaching of English in the secondary school. Four semesterhours of credit are granted for this thesis, but this credit cannot be considered part of the minimum eighteen semester-hours unless written permission is secured in advance from the Head of the Department.

GRADUATE COURSES

English 502. Victorian Poetry

The most important English poets who wrote during the transition from the Victorian to the modern period are read and discussed. An important feature of the course is the analysis and appreciative reading of the lyric poetry of Rossetti, Swinburne, Hardy, Bridges, G. M. Hopkins, Francis Thompson, A. E. Housman, Kipling, and W. B. Yeats.

ENGLISH 503. Geoffrey Chaucer and His Times

Some of the works of Chaucer are read rapidly, others studied intensively, so that the students may acquire a broad general understanding of Chaucer's place in the history of English literature as well as facility in reading and interpreting the medieval text of his stories.

Credit: 2 semester-hours

ENGLISH 505. Philosophy and English Poets

This course is designed to show the dependence of such English poets as Wordsworth, Coleridge, Shelley. Keats, Tennyson, and Browning upon the philosophical thinking of their day. The course aims to provide a philosophical background for the reading of teachers of modern literature and for the interpretation of much of the poetry which they teach in high school.

Credit: 2 semester-hours

ENGLISH 506. John Milton

This course has for its primary aim the understanding and evaluation of Milton's poetry. Contributory to this end are the following topics: the Puritan struggle for civil and religious liberty; the growth of science in the seventeenth century; the life, personality, and prose writings of Milton; his literary heritage and influence; comparison of Milton with the Cavalier Metaphysical poets.

Credit: 2 semester-hours

ENGLISH 507. Critical Writing

This course evolves a body of critical principles for judging art and literature, and provides training in the writing of criticism, ranging from comments upon pupils' themes to a full and comprehensive essay upon the work of some outstanding author.

Credit: 2 semester-hours

English 511. The History of Literary Criticism

The purpose of this course is to familiarize the student with the chief doctrines of the great critics from Aristotle to Arnold and to correlate these critical doctrines with the outstanding writings of each age. By such a study it is possible for the student to evaluate the historical interrelations of expert criticism and literary production. A basic text is used, but much of the information is gleaned from source materials.

English 512. The Growth and Structure of the English Language

This course is designed to help the high school teacher understand the structure of modern English, one of the most complicated of contemporary tongues. Through an analysis of the historical evolution of our language, the student discovers the reasons for many of the seemingly illogical and arbitrary characteristics of modern English spelling, grammar, and morphology.

Credit: 2 semester-hours

ENGLISH 513. The Renaissance

This course deals with Petrarch and the humanists; Boccaccio and the *Novelle*; the House of the Medici, Savonarola, the Popes; Machiavelli and *The Prince*; Cellini and the *Autobiography*; Castiglione and *The Courtier*; Boiardo, Pulci, Ariosto, and the romantic epic; the drama; the art of Da Vinci, Botticelli, Michelangelo, Raphael, Titian, and others; Rabelais and the *Gargantua and Pantagruel*; Cervantes and *Don Quixote*; Ronsard and the French *Pleiade*.

Credit: 2 semester-hours

English 514. Origin and Development of the Arthurian Legend

This course deals with the vague and tentative beginnings of the Arthur story in early chronicle and legend; with Geoffrey of Monmouth's pseudo-historical and Chretian de Troyes's romantic treatments; with the great medieval recapitulations of Gottfried von Strassburg, Wolfram von Eschenbach, and Sir Thomas Malory; with the Victorian retellings of Tennyson, Arnold, and Morris; with the musical adaptations of Wagner; and with the modern versions of E. A. Robinson. It includes a detailed history of the development of the legend in its divers forms.

Credit: 2 semester-hours

English 515. Robert Browning

Browning's characteristic shorter poems are recalled or studied in order to define his fundamental ideas as a writer. This is followed by a study of his longer poems and dramas: the "soul-studies", Pauline, Paracelsus and Sordello; the dramas, Strafford, Pippa Passes, A Blot in the 'Scutcheon, Colombe's Birthday, and In a Balcony; the translations, The Agamemnon of Aeschylus, and Balaustion's Adventure; and Browning's masterpiece, The Ring and the Book. These works are studied for their literary and philosophical values, as showing the development of Browning as man, poet, and philosopher, and as a reflection of certain phases of nineteenth-century life and thought.

ENGLISH 27

English 516. Language Problems in the English Curriculum

This course reviews the several theories of language and studies the problem of meaning in order to arrive at a suitable technique for the interpretation of prose and verse. This technique is then applied to the problems of reading, of composition, of speech, and of appreciation of literature. The course has two aims: to increase the student's own skill in dealing with language, and to increase his effectiveness in teaching.

Credit: 2 semester-hours

English 517. Recent Research and Experiment in the Teaching of English

This course analyzes and evaluates current research in the fields of language, literature, and composition relevant to the teaching of English in the high school, and examines critically recent experimentation in methods of teaching English. The aim of the course is to make available to the student any recent knowledge and experience which may throw light on the problems of English teaching in secondary schools and to evaluate tendencies in this field. The course is conducted as a seminar.

Credit: 2 semester-hours

ENGLISH 518. The Major Romantic Poets

This course studies the work of Coleridge, Wordsworth. Scott. Byron, Shelley, and Keats. It devotes especial attention to the poems which are best adapted for the reading of high school students.

Credit: 2 semester-hours

English 519. English in the Modern High School

This is a seminar in which the methods and materials requisite to the development of a program in the language arts (listening, speaking, reading, and writing) are considered.

Credit: 2 semester-hours

English 520. Great Books on Education

Students examine the classics dealing with educational theory and practice which they so often read about but rarely consult: Plato's Republic, Xenophon's Cyropacdia, Cicero's De Oratore. Castiglione's Courtier. Machiavelli's Prince. Rabelais's Abbey of Theleme, Ascham's Schoolmaster, Bacon's Novum Organum. Defoc's Projects. Milton's To Samuel Hartlit on Education. Rousseau's Emile. Byron's Don Juan, Hughes' Tom Brown's Schooldays. Newman's Idea of a University, the Arnold-Huxley debates, and the works of John

Dewey and Jacques Barzun. This course is recommended for graduate students in the Department of Integration.

Credit: 2 semester-hours

English 521. English Literature of Social Problems

This course surveys English literature as English 460 deals with American literature. The period from 1800 to 1914 is covered, and the principal authors discussed include Shelley, Dickens, Kingsley, Tennyson, Carlyle, Butler, Meredith, Galsworthy, Bennett, Shaw, and Wells. English 460 is not prerequisite to this course.

Credit: 2 semester-hours

ENGLISH 522. Advanced Phonetics

This course provides ear-training to develop skill in recognizing and distinguishing a-typical English speech sounds, regional differences in pronouncing American English, and foreign sounds heard in English speech. This is followed by extensive practice in transcribing speech sounds into International Phonetic Alphabet symbols and in reading International Phonetic Alphabet transcriptions. A thorough study of the speech characteristics of some geographical region with which the student is personally familiar is required of each student.

Credit: 2 semester-hours

English 524. Five Great Books

The aim of this course is to broaden and to deepen the student's general cultural perspective by a study of five books which have profoundly influenced present civilization. The actual choice of texts is a cooperative class enterprise. Selections are made from such books as: The Bible, Homer's Odyssey, Plato's Republic, Shakespeare's Hamlet, Rousseau's Confessions, Goethe's Faust, Tolstoy's War and Peace, Dewey's The School and Society. This course is designed to provide leadership in local "Great Books" meetings.

Credit: 2 semester-hours

English 525. The Development of the American Novel

The American novel as a contemporary art form is examined in this course. Beginning with the novels of the early nineteenth century the course traces the rise and development of the Romantic and the Realistic novel and concludes with an example of American Naturalism. The reading of eight novels is required for this course.

ENGLISH 528. Perspectives in World Literature

The point of view of our own democratic culture is surveyed and established in an attempt to see how the literature of Western Europe, the Middle East, and the Orient have influenced and are influencing modern thinking. Such perspectives are designed to provide adequacy in teaching a world point of view through literature.

Credit: 2 semester-hours

ENGLISH 530. Dante and His Influence in England and America

Fully two-thirds of the time of this course is devoted to rereading and reassessment of Dante himself in English translation. When Dante's meaning has been revealed, his continued influence from Chaucer through Sackville, Spenser, and Milton to Rossetti, Longfellow, and T. S. Eliot becomes the subject of investigation.

Credit: 2 semester-hours

SENIOR-GRADUATE COURSES

For more complete descriptions of these courses see the undergraduate catalog.

English 401. The Teaching of English in Secondary Schools

Students are taught to develop and use materials of the classroom: lesson plans and units of work are prepared and presented for criticism, textbooks are analyzed for training in their use, and bulletin board exhibits and visual education materials are prepared by students for the class. Observation and criticism of teaching in the College High School, and criticism of student compositions are required.

Credit: 3 semester-hours

English 402. Survey of British Literature to 1798

This course draws together into a systematic narrative the story of the development of English literature from the beginnings to the romantic triumph of 1798.

Credit: 4 semester-hours

English 404. Survey of British Literature

This course is a continuation of English 402. It takes up the story with the romantic triumph in 1798 and continues it to the present time.

English 405. The Victorian Poets

This course covers the work of the Brownings, Tennyson, Arnold, Clough, Morris, the Rossettis, and Swinburne. The authors are presented in relation to the moral, religious, social, and political life of nineteenth-century England.

Credit: 2 semester-hours

ENGLISH 406. The Modern Novel

Particular emphasis is given to British and American novels since 1870, and the important tendencies of present-day prose fiction are explored.

Credit: 2 semester-hours

English 407. British and American Biography

Both the old and new types of biography are read and studied in this course, with emphasis upon the nineteenth and twentieth centuries.

Credit: 2 semester-hours

English 408. Creative Writing

Students in this course attempt seriously the standard literary forms in prose and verse.

Credit: 2 semester-hours

English 409. The Teaching and Appreciation of Poetry

This course is both personal and professional. It develops the student's appreciation of poetry as an expression of life and as a form of art, and it considers in detail the aims and methods of teaching poetry.

Credit: 2 semester-hours

English 410. Speech Pathology

This course deals with diagnostic and corrective procedures, causes and treatment for stuttering, cleft palate, spastic speech, and aphasia. This course is required to teach speech and speech defectives.

Prerequisites: English 208 and 324

Credit: 2 semester-hours

ENGLISH 413. Modern Poetry

This course deals with the work of contemporary poets, both British and American.

ENGLISH 414. Public Relations and School Publicity

This course considers such problems as the development of a student publicity staff, preparation of copy for professional newspapers, publicity for school news, and the development of better school-community relations. A study is made of other publicity media, including radio, visual aids, the platform, displays and exhibits, special events, sports promotion and fund-raising. A background of elementary journalism is helpful in this course.

Credit: 2 semester-hours

English 415. Journalism for Advisers

This course is designed to qualify students to act as advisers of school publications. Problems of staff organization, as well as editorial, business, advertising, and circulation problems are discussed. The course assumes a knowledge of elementary journalism or the ability to combine extra assignments in elementary journalism with this course.

Credit: 2 semester-hours

English 417. Methods in the Teaching of Speech

In this course a study is made of the objectives of speech education, modern trends in instruction, speech textbooks and teaching materials, and the integration of speech with other academic departments of study. This course is required to teach speech.

Credit: 3 semester-hours

English 419. Grammar for Teachers

This course is a study of the basic facts of grammatical relationships in English, and of the current problems of "rules" as opposed to "usage." The primary aim of the course is to acquaint students with the true function of grammar in speech and writing.

Credit: 2 semester-hours

ENGLISH 420. High School Classics

This course is a seminar for prospective student teachers on the problem of teaching literature in high schools. The student reads numerous articles on the "classics" vs. the "moderns" controversy, becomes thoroughly acquainted with the contents and aims of the best high school anthologies currently in use, and builds up a working philosophy for his own teaching. Through the continued practice of reporting and discussion leading, the student is enabled to integrate his total experience in college.

ENGLISH 421. The Short Story

This course traces the history of the short story as an evolving literary form, emphasizing the productions of the nineteenth and twentieth centuries.

Credit: 2 semester-hours

English 422. Seventeenth Century Literature

This course covers the period from Donne through Dryden. It deals with Jacobean and Restoration drama; the Jonsonian, Metaphysical and Restoration lyric; the prose of Browne, Walton, Donne, Taylor, Hobbes, Burton, and Bunyan; the prose and verse of Milton; the prose and verse of Dryden.

Credit: 2 semester-hours

ENGLISH 426. The Victorian Novel

This is an intensive unit of work on the novel in Victorian England. Novels studied in the high school are treated professionally in class.

Credit: 2 semester-hours

English 427. Theatre and Society

Dramatic expression from the time of the ancient Greeks to the present is studied carefully to analyze social, political, and ethical trends as they are reflected in the drama.

Credit: 2 semester-hours

ENGLISH 428. The Film and Society

This course considers the impact of the motion picture on our culture. The film is studied and evaluated as a powerful social and educative force, as an art form, and as an entertainment medium. The origin and development of film techniques are treated, and films are shown at each session, accompanied by analysis and discussion. The scenario as a literary type and the adaptation of prose fiction for film purposes are included in the course content. A laboratory fee of \$5.00 to cover the cost of film rentals accompanies this course.

English 430. Reading in Secondary Schools

After examination of recent research concerning reading activities at various age levels, the class examines and evaluates methods devised to develop reading skills, to increase vocabularies, and to improve the comprehension of secondary school students.

ENGLISH 431. Shakespeare

This course deals with Shakespeare's plays in relation to his life, his times, his contemporaries, and Elizabethan drama generally. Extensive reading is required from Shakespeare, his predecessors, contemporaries, and successors. The problems of stage production in both Elizabethan and modern theatres and of Shakespearean criticism are analyzed.

Credit: 4 semester-hours

English 432. The Development of the Drama

The development of the drama is studied in all periods from ancient Greece and Rome through the Middle Ages and the Renaissance to the beginning of modern drama with Ibsen. The emphasis of the course is placed on trends, developments, and the major characteristics of the drama and its necessary complement, the theatre. Representative plays are read and discussed.

Credit: 2 semester-hours

English 435. Stagecraft

This workshop course provides training in construction and painting of scenery and lighting the stage. A minimum of twelve clock hours of craft work upon a production of the College or College High School is required for credit in this course.

Credit: 2 semester-hours

ENGLISH 438. Masters of American Literature

Significant American writers, including Irving, Hawthorne, Poe, Emerson, Melville, Whitman, and Mark Twain, are studied to discover their contributions to American life and to reveal important forces in our national background.

Credit: 2 semester-hours

English 439. Contemporary American Literature

This course studies the major authors and literary movements in America during the contemporary period. Beginning where the course in *Masters of American Literature* normally ends, it is designed to complete a unit in this subject.

Credit: 2 semester-hours

English 440. The English Novel from Defoe to Scott

After a brief preliminary examination of the medieval, the Elizabethan, and the seventeenth century anticipations of the novel, the development of English fiction from Defoe to Scott is studied.

ENGLISH 441. Medieval Epic, Saga, and Romance

This course deals with the chief medieval epics, sagas, and romances from the literatures of England, France, Germany, Ireland, Iceland, Wales, and Italy in modern English translation.

Credit: 2 semester-hours

English 442. American Literature

This chronological survey examines American literature to observe its reflection of the political, social, and ethical principles of the American people.

Credit: 4 semester-hours

English 443. Modern Drama

An historical survey of trends, dramatists, plays, and accomplishments from Ibsen to the latest prize plays on Broadway provides background for this course.

Credit: 2 semester-hours

English 444. Preparing the Radio Script

This course trains the student in planning and writing educational radio scripts. Selected class scripts are recorded in the College studio and are offered to commercial stations for broadcasting.

Credit: 2 semester-hours

English 445. Eighteenth Century Literature

Major essayists, poets, dramatists, novelists, and letter writers are read and evaluated in terms of the thought, life, and literary movements of their own time and of their significance for the present generation.

Credit: 2 semester-hours

ENGLISH 446. The One-Act Play

This course studies the one-act play as an art form, devoting special attention to plays which are suitable for high school production.

Credit: 2 semester-hours

English 447. Philosophy of Great Literature

By studying one or two masterpieces in a given semester this course aims to help the student develop a plan of study to achieve a systematic understanding of the philosophic world-views and life-views implicit in such works as: Aeschylus's trilogy, *The Oresteia*; Plato's

Timæus; Boethius's Consolations of Philosophy; Dante's Divine Comedy; Shakespeare's Hamlet; Milton's Paradise Lost: Pascal's Pensées; Goethe's Faust; Blake's The Marriage of Heaven and Hell; Dostoievski's Brothers Karamazov; Mann's The Magic Mountain; Hesse's Demian; Henry Adams's Mont St. Michel and Chartres; the Bhagavad-Gita; Lao-tse's The Book of Tao; and Auden's Collected Poetry.

Credit: 2 semester-hours

English 448. Choral Speaking

As members of a speaking choir, students acquire skill in interpreting various forms of literature suitable for group treatment.

Credit: 2 semester-hours

ENGLISH 449. Public Speaking

This is an advanced course in the theory and practice of public speaking. It provides opportunity for training in the more complex speech skills, especially in the techniques of leadership in speech situations and the techniques for making speech responses in cooperative situations.

Prerequisite: English 204 or the equivalent

Credit: 2 semester-hours

English 450. Contribution of American Drama to American Democracy

This course studies the part played by American drama in the evolution of American democracy from the eighteenth century up to the contemporary period.

Credit: 2 semester-hours

ENGLISH 451. Literature and Art in Western Culture

This course deals with the nature of literature and considers its importance as a factor in the development of international understanding. It deals with the relation between the use of language in literature and with the methods of art, since the re-creation of experience is a function common to both. Through reading the literature which is being read by our neighbors today, both in Europe and in the Western Hemisphere, students are able to participate in a common experience with them.

English 454. Training the Speaking Voice

This is a course in the study of the problems of speech, the development of a pleasing speaking voice with precision in diction, and the application of speech skills to practical speaking situations.

Credit: 2 semester-hours

English 455. Reading Interests of High School Students

Through wide reading, study and preparation of bibliographies, and establishing criteria for judging current books, the student is prepared to guide the recreational reading of junior and senior high school students. Credit cannot be given for both English 301A and 455.

Credit: 2 semester-hours

ENGLISH 456. Play Direction

This course covers the choosing and casting, as well as directing, of plays. Scenes are directed for class criticism, and a detailed prompt-book of one play is prepared. This course complements English 435.

Credit: 2 semester-hours

ENGLISH 457. Workshop in Speech Activities

It is the purpose of this course to prepare students to organize and to conduct assembly programs, PTA demonstrations, and similar activities. Class lectures and discussions cover all phases of the director's responsibilities. Groups conduct research on suitable program materials and share their findings with classmates. Each student prepares a list of programs of various types which he could present during a school year.

Credit: 2 semester-hours

ENGLISH 458. Radio Directing

This course offers training in the organization and direction of radio programs, and equips the student to select material for broadcasting and to cast and to rehearse programs. Listening is directed toward an analysis of common radio presentation techniques and the appreciation of successful programs.

English 37

ENGLISH 459. A Survey of Great Chinese Literature

Some of the contributions which have gone into the making of Chinese literature, such as the work of Tao Teh Ching, the Analects of Confucius, The Monkey, and the poetry of Tang are considered. Aside from a general insight into the great literature of China special attention is given to English translations of masterpieces of Chinese literature. There are twenty-four hours of lectures in the morning, and round-table discussion and library work in the afternoon. During the workshop period individual students work on specific phases under the guidance of the instructor.

Prerequisite: Social Studies 499—China Workshop

Credit: 3 semester-hours

English 460. American Literature of Social Problems

This course surveys the American literature which presents social problems during the period from 1800 to 1914 in an attempt to discover the attitudes of the various authors toward these problems. The works of such authors as Cooper, Lowell, Thoreau, Whitman, Howells, Bellamy, Garland, and Glasgow are studied from this point of view. Enough of the social background of the period is discussed to give the necessary perspective for the discussion of the literature, but the emphasis is placed on the reflection of the problems in literature and not merely on the problems themselves.

Credit: 2 semester-hours

ENGLISH 461A. Speech Clinic Practice

After the techniques of interviewing, of preparing case histories, of diagnosing speech disorders, of planning therapies, and of determining prognoses have been taught through lectures and demonstration lessons, each student is assigned one or more persons with speech defects for supervised practice in correcting speech disorders. Credit is given on a laboratory basis, and the course meets three hours weekly. This course is required for the teaching of speech defectives.

Credit: 2 semester-hours

ENGLISH 461B. Advanced Speech Clinic Practice

This course provides for additional supervised speech correction practice with adults or children with speech disorders. Credit is given on a laboratory basis, and the course meets three hours weekly.

Credit: 2 semester-hours

ENGLISH 462. Group Discussion and Leadership

Students are taught the principles of democratic discussion and methods for guiding the committee meeting, panel symposium, lec-

ture, and debate forums. Frequent opportunities to apply these principles and methods are given through discussion of topics chosen by the class.

Credit: 2 semester-hours

English 463. Audio-Visual Aids in Teaching Speech

The aim of this course is to equip prospective teachers to understand the desirable characteristics; capabilities; and all possible uses of charts, models, and magnetic and disc recorders available for the teaching of speech. The distribution, cost, operation, servicing, and storing of instruments and of supplies are also considered.

Credit: 2 semester-hours

ENGLISH 464. Speech Psychology

The mental processes involved in acquiring language and in using it in effective oral communication are reviewed. Problems involving psychological principles as they apply to oral teaching, to audience leadership and control, to the alleviation of stage fright, and to the teaching of speech improvement are considered along with the principles of general semantics.

Credit: 2 semester-hours

ENGLISH 465. Speech Arts Activity

Each speech major is required to earn at least one semester-hour of credit in some supervised speech arts activity, such as: playing a major role in a major production; directing a three-act play or its equivalent; giving a public play reading or lecture recital; directing a series of assembly programs; or directing and producing a series of radio programs.

Credit: 1 semester-hour

English 466. Speech Development; Improvement and Reeducation

This course is intended for superintendents, principals, and class-room teachers who have little or no background in speech education. Consideration is given to the following topics: (1) speech development; (2) speech difficulties or problems found on the kindergarten, elementary, and secondary school levels; (3) acquisition of good voice and speech characteristics; (4) use of techniques and materials in classrooms to motivate good speech patterns; and (5) ways of setting up and integrating speech education in school systems. Demonstrations with individuals and groups are made, and students are expected to prepare a practical project.

DEPARTMENT OF FOREIGN LANGUAGES

In its undergraduate work the Foreign Language Department endeavors to train students in sound scholarship and true culture and to give them a sympathetic understanding of the nation and people whose language they are preparing to teach. There has been a growing demand from the graduates of Montclair and other colleges that graduate work be given by the department. Such work is now offered in French and Spanish. Effort is made to schedule the classes in the late afternoons, Saturday mornings, and in summer terms for the accommodation of teachers in service.

Many students prefer to do part of their graduate work in a country where the language of their major is spoken. For such students the department has instituted a course, Study Abroad, by means of which the student may gain as many as sixteen semester-hours of credit. Students desirous of doing this work should consult with the Head of the Department who will outline the requirements and procedures necessary that the work may receive credit at Montclair.

All students take a comprehensive examination. Those who wish to write a thesis as partial fulfillment of the requirements for the Master's degree must secure the consent of the Head of the Department.

FRENCH 502. Study Abroad

FRENCH 510-515. French Provincial Civilization

The cultural aim of the course is reached through the study and discussion of the outstanding French contemporary regionalist authors. The professional aim is attained by means of the study of regional geographic, historic and artistic sources, customs, legends, costumes, and felk songs. The six parts of this course form a complete study of regional France.

Credit: 2 semester-hours each

French 516 and 517. Survey of French Literature

This course draws together in a systematic way the development of French literature from the beginning to modern times. It brings out the chief characteristics of the various epochs and the evolution of French thought and literary ideals from the Chanson de Roland to the present.

Opportunity is provided for students to review the subject-matter of the former period courses and to see these periods in their proper perspective in the history of French literature. The course is conducted in French.

Credit: 2 semester-hours each

SPANISH 502. Study Abroad

Senior-Graduate Courses on 400 level as listed in the undergraduate catalog.

DEPARTMENT OF INTEGRATION

Graduate courses in this department meet one or more of three needs: (1) instruction in Administration and Supervision, leading to the A. M. degree and New Jersey certification for one or more of the positions of Subject Supervisor, General Supervisor, Elementary School Principal, Secondary School Principal, Supervising Principal, and Superintendent; (2) instruction in Personnel and Guidance, leading to the A. M. degree and New Jersey certification in guidance; and (3) instruction in advanced professional courses for the classroom teacher.

In pursuit of the above objectives most graduate courses in the Department of Integration are designed for students who are having or have had teaching experience. Other courses presuppose at least a teaching certificate. Enrollment in graduate Integration courses, therefore, is subject to the following restrictions:

- 1. Students Who Do Not Have a Teaching Certificate—Graduate students in this classification may enroll in undergraduate and senior-graduate (400 level) courses in order to meet certification requirements. They also may enroll in the following graduate Integration courses: 500A, 500B, 500C, 505, 540, 550, 551, and 552. (These courses are designated in the descriptions below by a single asterisk *.) Not more than eight semester-hours earned in senior-graduate and the graduate courses listed above may be counted toward an A. M. degree in the Integration Department.
- 2. Graduate Students Who Possess a Teaching Certificate But Who Have No Teaching Experience—Students in this classification may enroll for any of the courses listed in the previous paragraph and also Int. 500D, 500E, 500F, and 503. (These additional courses are designated below by a double asterisk **.) They may count no more than eight semester-hours in any courses earned prior to matriculation for the A. M. degree.
- 3. Students Matriculated for the A. M. Degree—Graduate students working toward an A. M. degree in either the field of Administration and Supervision or Personnel and Guidance are permitted to matriculate only when they are having or have had teaching experience. Students majoring in Personnel and Guidance are required to have two years of teaching experience before the degree can be conferred.

- 4. Students who plan to remain classroom teachers are not encouraged to seek an A. M. degree in either the field of Administration and Supervision or Personnel and Guidance.
- 5. Courses in the teaching of elementary school subjects are offered primarily to help graduate students to complete certification in this field. Such courses may be counted toward an A. M. degree only under certain conditions which are outlined by the Integration Department graduate adviser.

GRADUATE COURSES

*INTEGRATION 500A. Basic Educational Trends

This course deals with the historical background which administrators and supervisors, as well as teachers, need in order to evaluate problems and policies in due perspective. It emphasizes the current trends in American society and their bearing upon education. It also considers philosophies concerning the causes of rises and declines in outstanding civilizations and the part education could play among them.

Credit: 2 semester-hours

*Integration 500B. Advanced Educational Psychology

The course covers the various aspects of growth. Individual differences, their measurement, and their bearing on educational practices and principles furnish topics of study and discussion. Principles and laws of learning are reviewed. Some time is given to problems of personality as encountered in school work. The several points of view which have been prominent in the psychology of the past fifty to seventy-five years are examined for their contributions to thinking about human nature.

Prerequisite: An introductory course in psychology.

Credit: 2 semester-hours

*Integration 500C. Recent Trends in Secondary School Methods

This course emphasizes the fundamental principles underlying the technique of teaching on the secondary school level. Some of the topics considered are: organization of knowledge, the logical and psychological aspects of method, developing appreciations, social-moral education, teaching motor control, fixing motor responses, books and verbalism, meeting individual differences, guidance in study, tests and examinations, marks and marking.

**Integration 500D. School Administration 1: Functions and Organization

This introductory course in educational administration is concerned with general functions and personnel, as well as with the general organization, of public education on local, State, and national levels. It deals also with Federal-State relations, the State and sectarian education, the expanding scope of modern school systems, types and bases of school organization, and professional ethics.

Credit: 2 semester-hours

**Integration 500F. School Administration II: Law and Finance

This course acquaints the student with the allied fields of school law and school finance, with special reference to New Jersey. Its topics include basic principles of public school support, taxation, Federal aid, educational finance, legal provisions for school district borrowing, tenure provisions, and rights and duties of school boards and officials.

Credit: 2 semester-hours

**Integration 500F. School Administration III: Community Relations

This course concerns the relation of the school to other educational efforts of the community. It considers the scope and types of agencies and informal influences of an educational nature, and also the agencies and methods by which the best total co-operative effort can be attained. It deals also with methods and plans of publicity. Constant reference throughout is made to New Jersey localities.

Credit: 2 semester-hours

Integration 502. Organization and Administration of the Modern High School

The following topics are considered: the student personnel, building and revising the high school curriculum, providing for individual differences, making the school schedule, records, the guidance program, pupil participation in government, the extra-curricular program, the health program, the safety program, discipline, library and study hall, cafeteria, the principal's office, and evaluating results.

Credit: 2 semester-hours

**Integration 503. Methods and Instruments of Research

This course is required of all candidates for the Master's degree without regard to their field of major interest. Its purpose is to intro-

duce students of education to research and its practical application to professional problems. The course treats: the nature and types of educational research; methods and techniques of educational research; and the tools used in interpreting statistical data. During the course the student sets up a problem and plans and carries out its solution

Prerequisite: Mathematics 400

Credit: 2 semester-hours

Integration 504A. Curriculum Construction in the Secondary

The purpose of this course is to introduce the student to constructive criticism of American culture, to consider the extent to which the secondary school curriculum meets the needs of a changing civilization, and to consider effective means of curriculum construction.

Credit: 2 semester-hours

INTEGRATION 504B. Seminar in Curriculum Organization

This course is for students actively engaged in problems of curriculum reconstruction and those who are anticipating committee work in this field. This work is conducted under seminar or individual guidance and the hours for the conferences will, therefore, be arranged personally between the student and the instructor. (Integration 504A or Integration 548 is prerequisite to this course.)

Credit: 2 semester-hours

*Integration 505. Organization and Administration of Extra-Curricular Activities

The first part of this course considers such general problems of extra-curricular activities as: their growing importance; their relation to the curriculum; the principles underlying their organization, administration, and supervision; and methods of financing. In the second part, an intensive study is made of the home room, the assembly, the student council, clubs, athletics, school publications, and other activities in which the class is especially interested.

Credit: 2 semester-hours

INTEGRATION 508. Supervision of Instruction in Secondary Schools

This course emphasizes the more practical phases of supervision which are met most frequently by those engaged in it. Among the topics are: the set-up for adequate supervision, supervision as encouraging and guiding the growth of teachers and the improvement

of educational procedures, the supervisory functions of teachers' meetings, discussion groups, general and professional reading, the writing of articles, co-operative curriculum modification, utilization of community resources, and teacher intervisitation.

Credit: 2 semester-hours

INTEGRATION 510. Seminar in Secondary Administration and Supervision

In this course the class makes an intensive study of administrative and supervisory problems suggested by the educational events and trends of the year, by the interests and responsibilities of the members of the class, and by educational movements in New Jersey and the country. Each student does an individual piece of research which he reports to the class. This represents advanced work which depends upon previous study or experience in educational administration or supervision. (Prerequisites: Integration 502 or 601A, and 508 or 601B.)

Credit: 2 semester-hours

INTEGRATION 517. Administration of the Elementary School

This course analyzes and evaluates the administrative duties and relationships of the elementary school principal. Particular consideration is given to: building management, effective use of the school plant, sanitation, health service, the library, personnel management, the administration of the curriculum, community relationships, and publicity.

Credit: 2 semester-hours

INTEGRATION 518. Supervision of Instruction in the Elementary School

This course has been planned for those engaged in the supervision of the elementary school, and for those who are preparing for such responsibilities. Principles of classroom supervision are developed and applied to learning situations. Among the more important topics that receive attention are: the nature and function of supervision, the organization necessary for effective supervision, the nature and significance of the teacher's purposes, the methods and techniques of group and individual supervision, the technique of observation, and the supervisory conference.

INTEGRATION 520. Principles of Mental Hygiene

This course is designed to be a general survey of the principles and practices of mental health with special reference to the mental health of teacher and pupil. It involves a thorough grounding in fundamental principles of mental hygiene with much practical consideration of the mental-health values of instructional programs and procedures. Discussion centers in practical efforts to develop wholesome personalities in our schools

Credit: 2 semester-hours

INTEGRATION 521A. Educational and Psychological Measurement

This course deals with fundamentals of educational and psychological measurement: test theory, statistical concepts, test construction, evaluation, and interpretation. The place of tests in the instructional program is stressed.

Credit: 2 semester-hours

INTEGRATION 521B. Psychological Tests in Guidance Programs

This course is designed to familiarize the student with various psychological tests and scales that may be used in guidance programs in the secondary school. The student is given practice in administering many types of group tests. This includes scoring the tests and evaluating the results, with a discussion of ways in which these results may be used. Much time is spent in actual laboratory demonstrations of tests, giving students an opportunity to serve as subjects and as examiners. Class discussion is based upon first-hand information gained through use of the tests, on readings, and on class reports.

Prerequisite: Integration 521A

Credit: 2 semester-hours

INTEGRATION 523. The Exceptional Child

This course deals with the special problems of adjustment of the exceptional child. A study is made of mentally, physically, and emotionally handicapped children and of modern methods for their training. Part of the time is devoted to the special problems presented by children of superior ability. Much illustrative material is taken from actual problem cases encountered in public school work at junior and senior high school levels.

INTEGRATION 528. The Visiting Teacher—Psychiatric Social Work

This course aims to introduce the student to school and community activities of the visiting teacher. The case method approach is stressed throughout. The work consists of study and discussion of the literature on the visiting teacher, and the preventive, remedial, and corrective aspects of this work.

Prerequisite: Foundation courses in psychology

Credit: 2 semester-hours

INTEGRATION 529. Field Work in Guidance

The aim of the course is to introduce the student to various aspects of guidance through experience in agencies actually dealing with such problems. Students observe and participate in activities of the agencies to which they are assigned and write full accounts of these observations and experiences. Some time is spent in discussing and evaluating these experiences and relating them to the literature of the subject. Prerequisites are: experience in teaching; familiarity with the literature on all aspects of guidance and mental hygiene; and INTEGRATION 503, 520, and 521B. This work is conducted by seminar and individual guidance. The hours for the conferences are arranged personally by student and instructor.

Credit: 4 semester-hours

INTEGRATION 530A. Corrective and Remedial Reading in Secondary Schools

This course offers an investigation and interpretation of the reading problems which are found in secondary school classes. A study is made of the causes of reading difficulties, methods of diagnosis, and techniques of remedial and corrective teaching. Particular attention is given to the selection and adaptation of suitable curriculum materials. Guidance is given to teachers with individual case problems of retarded, normal, and superior pupils. Illustrative material is taken from case studies developed by classroom teachers.

Credit: 2 semester-hours

Integration 530B. Workshop in Corrective and Remedial Reading in Secondary Schools

This course is designed for students who are directing or instituting programs of remedial and corrective reading and for those who are teaching individuals and classes in such programs. For the most part each student works intensively on his own teaching problem, receiving suggestions and recommendations as the work progresses. Some

topics' of common interest are: diagnosis, remediation, evaluation, organization and administration of reading programs; use and cost of materials and equipment; relation to the rest of the educational program of the school.

Prerequisite: Integration 530A or the equivalent, or considerable experience in remedial work

Credit: 2 semester-hours

Integration 532. The Supervision and Teaching of Reading in Elementary Schools

The place of reading in the entire elementary school program is analyzed. Attention is given to necessary remedial work for junior high school students. Materials and their use in instructional programs are studied with a view toward increasing power. All growth levels are considered. Good first teaching is of primary concern; however, the analysis and correction of certain reading difficulties constitute an important portion of the course.

Credit: 2 semester-hours

INTEGRATION 535A. Vocational Guidance

This course is especially intended to enable high school teachers to guide their pupils in planning for constructive vocational life. The course is designed to be helpful also to adults who are seeking better vocational adjustment. The following topics are included: the purpose of work, main areas of work, inventory of personal interests and traits, analyzing interests and traits, samples of personal inventories with analyses and interviews, exploring one's area of work, making the most of school days, finding the first job, adjustments on the way, advancement—what it is and how to attain it, intelligent use of money, balanced use of time, and cultivating pride of work.

Credit: 2 semester-hours

INTEGRATION 535B. Vocational Counseling and Guidance: Principles and Practices

This course is intended for counselors in the junior and senior high schools to obtain information about the principles and philosophy of vocational education and the techniques of counseling youths who wish to receive pre-employment training, and for counselors of out-of-school groups who are attempting to make readjustments to occupational life. The course reviews the general provisions of the Smith-Hughes and George-Barden Acts and the specific provisions in these acts for programs of occupational information and guidance. Attention also is given to guidance techniques for job preparation and

readjustment, the matching of educational and personal abilities to job specifications, the effects of social legislation on the employment of youths, a review of State and Federal labor legislation, and a study of techniques used in determining occupational needs and occupational changes.

Credit: 2 semester-hours

INTEGRATION 536. Educational Guidance

This course is concerned with the facilities available for education after high-school graduation, the problem of fart'er training for pupils leaving school before completing high school, and the academic problems of students while in school. A brief survey of colleges and college-admission procedures is made.

Credit: 2 semester-hours

INTEGRATION 537. Social-Moral Guidance

This course is concerned with the non-vocational and non-academic personal and social problems of pupils as well as with the development of techniques by which counselors can integrate the pupil's personal life with the mores and customs of society. It also includes a study of the possible services of various community agencies and a study of the counselor's relation to problems of discipline and citizenship education.

Credit: 2 semester-hours

INTEGRATION 538. Group Guidance and Counseling Activities

This course is concerned with the various techniques for helping individual pupils and for using group activities including role-playing as a guidance technique. The group activities considered include those of home rooms, activity periods, occupation courses, student field trips, placement follow-ups, college nights, and career days.

Credit: 2 semester-hours

*Integration 540. Recreational and Activity Leadership

It is the aim of the course to furnish each student with practical skills that are of service in dealing with young people of high school age. The practical side is supplemented by a thorough consideration of source material and theory. A partial list of the areas covered in the course follows: how to organize and handle groups, the use of leaders from within the group, indoor games, outdoor games, special hikes, outdoor cooking, camp-fire leadership. Special field trips are provided to observe camps and playgrounds in operation.

INTEGRATION 548. Curriculum Construction in the Elementary
School

This course offers an opportunity to review state and city elementary curricula; to discuss the principles of curriculum construction; to collect new teaching materials for the various subjects; and to evaluate, organize, and grade these materials. Teaching procedures in the use of materials are discussed and evaluated in terms of pupil needs, the objectives set up, and the results obtained. This course offers an opportunity to make a special study of the materials and procedures to be used in the supervision of the language arts.

Credit: 2 semester-hours

INTEGRATION 549. Principles, Practices, and Philosophy of Vocational Education

This course is intended to give school administrators and those preparing for the field of administration an understanding of the philosophy of this field of education. The course includes the following subjects: the Smith-Hughes Act, the George-Barden Act, the relationships between State and local boards of education, the State Department of Education, and the United States Office of Education in the administration of these acts; the State plan for vocational education for the period 1947-1952; the basic requirements for courses in the fields of agriculture, trades, and industry; home economics, distributive education, and occupational information and guidance. Consideration is given to full-time, evening, and part-time cooperative and vocational technical programs; also apprenticeship training and work experience for out-of-school youth and adults. The methods of reimbursing local boards of education for approved vocational activities are outlined.

Credit: 2 semester-hours

* Integration 550. Child and Adolescent Development

This course reviews the general characteristics of child and adolescent development: motor and physiological, social, emotional, language, intellectual, and interests and ideals. The influence of home, school, community, and institutional life on child and adolescent development are considered as well as problems of guidance presented by children in the normal course of development and also those presented by deviations from the normal course.

* Integration 551. Principles and Techniques of Guidance

Topics included in this course cover: philosophy of guidance, history of the guidance movement, the need for guidance presented by children and adolescents. The methods of gathering useful data are studied, and school records, exploratory activities, tests, inventories, the case study approach, occupational information, and occupational data are treated as well as general methods of guidance with special stress on interviewing and counseling of students.

Credit: 2 semester-hours

* Integration 552. The Junior College Curriculum

This course considers admission requirements, required and elective courses, course contents, and supplementary extra-curricular and guidance activities of the junior college. As a background for a consideration of the principles underlying junior college curricula, there is a brief treatment of the beginnings, aims and functions, administrative organizations, and general trends of American junior colleges.

Credit: 2 semester-hours

INTEGRATION 553. Core-Curriculum and Life-Adjustment Programs in High Schools

This course concerns two leading educational developments of the last decade after a discussion of their philosophy and historical antecedents. The most significant school programs already adopted to put these developments into practice are presented in detail.

Credit: 2 semester-hours

INTEGRATION 601. Workshop in Education

Section A-Organizing and Administering the School

Section B-Supervising Instruction

Section C—Dealing with and Understanding Youth

The workshop course enables the graduate student to devote his time to an educational topic or school problem of current interest to him and to secure the help of the staff, fellow students, and college facilities in pursuing this study. Members of the workshop may meet together to discuss matters of common concern in respect to the current school situation. In addition, the student works independently on his own subject and at times meets with a small group interested in the same area.

In the past, students have worked on topics in such areas as these: problems in administration, guidance programs, extra-curricular activities, school philosophies, problems in supervision, curriculum plan-

ning, and community relations. The success of the workshop depends much upon the student knowing what he wants to accomplish in six weeks, the procedure being flexible enough to support his purposes. He must have his proposed problems for study approved by the Director of the Workshop before he enrolls for the course.

The workshop is offered only in the summer session. It is divided into three sections, as noted above. The student may enroll for four semester hours credit or for two, the four calling for two periods of scheduled time in the course daily, the two calling for one period of scheduled time in the course. The student taking the course for two credits enrolls for one of the three fields: A—administration, B—supervision, or C—guidance. The student taking it for four credits may do all the work in one of these three fields, or he may enroll for two hours credit in one and two in another.

Credit: 2 or 4 semester-hours

INTEGRATION 602. Seminar in Guidance

This course is designed to provide a laboratory situation for the exploration and study of the present practices with respect to the three major phases of the guidance program. Usually this seminar is given in conjunction with either Vocational (Integration 535A), Educational (Integration 536), or Social-Moral (Integration 537) Guidance. The major portion of the time is spent on field trips, in private investigation, and in research.

Prerequisites: Integration 551, and have taken or be taking in conjunction one of the courses of major emphasis listed above

Credit: 4 semester-hours

SENIOR-GRADUATE COURSES

Most of the following courses are set up to serve graduate students as well as College seniors. To carry graduate credit, the course in question must be approved by the candidate's adviser. In all instances, Integration 406, Integration 409, and Integration 410 will be accepted as work for either of the two graduate degrees in this department. For a more complete description of these courses see the undergraduate catalog.

INTEGRATION 400A. Principles and Philosophy of Secondary Education

This course evaluates educational objectives, techniques, procedures, and organizations in relation to the needs and demands made upon the school by society and by the student.

INTEGRATION 400B. Practicum in Secondary Education

This course follows the student-teaching. It makes use of the teaching problems encountered by the students in the preceding twelve weeks, as well as similar problems reported by students in former years.

Credit: 2 semester-hours

Integration 406. Educational Sociology

This course deals with the application of sociological principles to educational problems. The school is treated as a part of the community, and the various social forces that affect the school and its administration are considered.

Credit: 2 semester-hours

INTEGRATION 408. Selection and Utilization of Audio-Visual Materials

Sources, selection, and evaluation of audio-visual aids are studied in this course. Techniques in developing individual reference catalogs of audio-visual aids are stressed.

Credit: 2 semester-hours

INTEGRATION 409. Radio and Sound Equipment in the Classroom

This course trains teachers and school executives in the use of radio programs, amplifying systems, recording equipment, and record players. Actual practice is given in the use of these educational aids. Problems of script-writing, microphone and recording techniques, and program directing are considered.

Credit: 2 semester-hours

INTEGRATION 410. Teaching Materials Workshop

This course is for those persons who wish to study advanced problems in the utilization and administration of audio-visual materials. Individual research is stressed, and there is an opportunity to work out individual projects.

Credit: 2 semester-hours

INTEGRATION 430. Techniques for Improving Reading Abilities

This course deals with the diagnosis and remedial treatment of difficulties in reading. A study is made of the basic principles underlying desirable reading experiences and their application in guiding children to success in learning to read adequately.

INTEGRATION 440. Camping Education

The purposes of this course is to familiarize the students with camping and outdoor education as educational methods utilized by the schools of America. The aims and methods of camping are studied, and consideration is given to the communities that have active camping and outdoor education programs in operation.

Credit: 2 semester-hours

INTEGRATION 441. Conservation Education

The social, economic, and scientific implications of conservation are considered in this course. Discussion periods are interspersed with field trips to forest areas and demonstrations of conservation problems.

Credit: 2 semester-hours

INTEGRATION 442. Practicum in Camp Leadership

In this course the student has an opportunity to learn the techniques of camp leadership through practical experience, guided group study, and discussion. The practical experience comes through serving as a camp counselor in an actual camp situation.

Credit: 2 semester-hours

INTEGRATION E460. Public School Program of Studies

This title is given to a group of courses designed to meet requests from public school systems desiring help in curriculum reconstruction. Each of the parts of this general course will be given on a cooperative inter-college basis, and taught by specialists in the various fields selected from the faculties of the cooperating State Teachers Colleges. Certificates of credit will be issued by the college sponsoring the work.

Part I. 460A—Principles of Curriculum Revision

Part II. 460B—Workshop in Curriculum Revision

Part III. 460C—Organization and Evaluation of Curricula

Part IV. 460D—The Social Studies Program of Studies

Part V. 460E—The Language Arts Program of Studies

Part VI. 460F—The Science Program of Studies

Part VII. 460G—Workshop in Materials and Methods of Science Education

Part VIII. 460H—The Mathematics Program of Studies

These cooperative inter-college courses are provided only when the requests from the public school authorities of the county, municipality, or community are such as to require their use. No undergraduate may elect this course unless he is actively engaged in teaching.

Credit for each part: 2 semester-hours

ELEMENTARY EDUCATION COURSES

Although the New Jersey State Teachers College at Montclair is engaged primarily in preparing secondary school teachers, during the present shortage of teachers in the elementary schools it was deemed expedient to offer courses in the field of elementary education for the undergraduates of the college leading toward certification to teach in these subjects. Under certain conditions the courses listed below may be used for graduate credit. Students should check with their advisers in this connection.

INTEGRATION 471. Principles and Practices of Elementary Education

This course is intended for students who already have a considerable subject-matter background in the fields of social studies, science, and mathematics. The course covers the principles and techniques for teaching these subjects in the elementary grades with special emphasis on the correlation of subject-matter and providing for the maturity level of the pupils.

Credit: 2 semester-hours

Integration 472. Elementary School Curriculum

This course acquaints the college student with the subject-matter of the elementary school curriculum for grades 3-6, inclusive.

Credit: 2 semester-hours

INTEGRATION 473. Elementary School Language Arts

This course gives an overview of modern practices that are used in teaching reading, creative writing, speaking, spelling, and handwriting in the elementary grades.

Credit: 2 semester-hours

Integration 477. Elementary School Mathematics

This course includes a study of the development of the number concept in young children, the problem of number readiness, and an analysis of the various number skills. Consideration is given to the development of methods of presenting the units of elementary mathematics to children.

INTEGRATION 478. Elementary School Science

This course is based upon the assumption that science teaching in the elementary school should include scientific inquiry at the child's level as well as scientific information. Specific methods and materials are developed to meet these purposes.

Credit: 2 semester-hours

INTEGRATION 479. Elementary School Social Studies

This course is designed to familiarize the student with the materials and methods for teaching man's relation to his environment and other human beings in the elementary grades.

DEPARTMENT OF MATHEMATICS

The primary objective of graduate study in the teaching of secondary mathematics is to meet the needs of teachers in service. This is done by giving such teachers a richer background in pure mathematics than they acquired in undergraduate study, by acquainting them with important applications of mathematics, and by leading them to make a careful study of current problems in the teaching and supervision of mathematics. To this end the candidate for a Master of Arts degree in the teaching of mathematics must select graduate courses from three classifications:

- a. Pure Mathematics: To give the teacher some acquaintance with important fields of higher mathematics.
- b. Background: To supply the teacher with knowledge of the uses of mathematics in other fields of human endeavor and with extensions of the mathematics taught in the junior and senior high schools to more advanced topics. This background information is valuable to the high school teacher as an enrichment of his teaching.
- c. Teaching and Supervision: To familiarize the teacher with important problems in supervision, with important research in the teaching of mathematics, and with current problems in the organization and conduct of classes in secondary school mathematics. The opportunity thus furnished for discussion of current problems of interest in the world of mathematical education makes it possible for the teacher to make well-considered decisions about courses of study, procedures, and techniques.

The teacher of secondary school mathematics who wishes to pursue graduate studies leading to the Master's degree should consult the Head of the Mathematics Department in choosing those courses which best supplement his previous training. Of the thirty-two graduate credits required for the degree, eighteen or more (the exact number depending on the candidate's previous training in mathematics) must be taken in the Department of Mathematics. In no case is a candidate matriculated for the degree who has not had courses in mathematics at least through differential and integral calculus.

A final examination in mathematics is given all candidates prior to the conferment of the degree. This examination is general in nature and is designed to test the candidate's maturity of thought in mathematics and in the teaching of mathematics.

In lieu of four of the required thirty-two credits, the candidate may write a thesis giving the results of some study in the field of mathematics or its teaching. This study must be made after consultation with the Head of the Mathematics Department and under the sponsorship of a member of the mathematics faculty. Plans should be made to have such a study in its final form and approved by the Department of Mathematics by March 1 of the year in which the degree is expected. The preparation of such a dissertation does not relieve the candidate of any of the required credits in mathematics.

A candidate who does not have a certificate to teach mathematics must have thirty undergraduate credits in mathematics before beginning graduate work. He should consult the Head of the Mathematics Department for advice in planning his work.

GRADUATE COURSES

MATHEMATICS 501A. Administration and Supervision of Mathematics, Part I

This course is concerned with the problems met in organizing and supervising the teaching of mathematics. There are considered the functions and qualifications of the supervisor of mathematics, inservice training of teachers, demonstration lessons, professional attitude and preparation of teachers, department meetings, selection of texts, current problems, research, and the basis for determining objectives.

Attention is paid to efficient methods of securing mastery of skills, the development of power in problem solving, and the organization of testing programs.

Credit: 2 semester-hours

MATHEMATICS 501B. Administration and Supervision of Mathematics, Part II

Particular emphasis is placed on such current problems of the high school as the organization of a four-year course in general mathematics, revision of the present college preparatory course, proposals for revision of, or changed emphasis in, the course in plane geometry, as well as suggestions for including some analytic geometry and calculus in the senior year. Reports of various commissions are also considered.

MATHEMATICS 501C. The Teaching of Advanced Secondary School Mathematics

This course presents the best modern practices in teaching advanced algebra, trigonometry, solid geometry, and analysis in the last two years of the senior high school. Topics include: introducing trigonometry, teaching applications of trigonometry, variations in the sequence of topics, recent trends in the curriculum, the aims of teaching solid geometry, the elimination of certain subject matter and proofs, the use of algebra and trigonometry in solid geometry, making algebra thinking rather than manipulation, applications of advanced algebra, and the use of the function concept in unifying the mathematical knowledge of the student. A study is made of outstanding experiments in teaching these subjects and methods of adapting the material to the abilities and interests of the students.

Credit: 2 semester-hours

Mathematics 503. Foundations of Algebra

Careful consideration is given to the fundamental concepts and postulates which form the foundation of algebra. Upon this basis the development of our number system is traced through the application of algebraic operations. Algebraic analysis supplies the criteria for the possibility of geometric constructions. Also a brief survey is given of the general theory and use of rational integral functions.

Credit: 2 semester-hours

Mathematics 504. Modern Algebra

The modern algebraic theories of groups, rings, and number fields are studied. Particular attention is given to polynomials over a field, matrices and determinants, and the properties of linear independence and linear dependence.

Credit: 2 semester-hours

Mathematics 505. Consumer Mathematics: A Background for Teaching in the Junior High School

This course aims to survey the field of consumer problems, to display mathematics as a powerful tool in analyzing these problems, and to consider the placement and methods of teaching this material in the intermediate grades and in the junior high school. Some of the topics included are: the cost of raising children; the money value of a man; the cost of owning or renting a home; insurance; pensions and social security; stocks, bonds, and the financial page; the quality and cost of consumer goods; business cycles and indices of business activity.

MATHEMATICS 506. Current Research in Secondary Mathematics

A study is made of the findings of current research studies directly concerned with the teaching of secondary mathematics (grades 7—14) and of studies in the fields of arithmetic or of general education which affect the teaching of secondary mathematics. The effects of these studies on syllabi and on textbooks are also studied.

Credit: 2 semester-hours

MATHEMATICS 507. The Teaching of General Mathematics

A study is made of the reports and recommendations affecting courses in general or integrated mathematics in secondary schools and in junior college. Methods of teaching classes in general mathematics are studied when such methods differ from those used in the sequential courses, as well as the variations in subject matter in different courses.

Credit: 2 semester-hours

MATHEMATICS 509A. A Critical Interpretation of Mathematics in the Senior High School, Part I

An opportunity is here offered for an investigation and interpretation of the algebra and geometry of the secondary school. The meaning and use of secondary mathematics are stressed, rather than the methods of teaching. Among the topics discussed are: algebra as a thought process and not a mechanical operation, types of thinking in algebra and geometry, fundamental laws of arithmetic, algebra as generalized arithmetic, geometrical interpretation of algebra, the function concept in algebra and geometry, the changing scope and subject-matter of Euclidean geometry, limits and incommensurables, and integration (i. e., correlation and fusion) of all secondary mathematics.

Credit: 2 semester-hours

MATHEMATICS 509B. A Critical Interpretation of Mathematics in the Senior High School, Part II

Among the topics discussed are: the development and use of the limit concept in secondary mathematics; the introduction of analytic geometry and calculus; the geometry of space; permutations and combinations; the elements of probability and statistics. The subject matter is adapted to the secondary level and treated from the professional viewpoint.

MATHEMATICS 509C. A Critical Interpretation of Mathematics in the Junior High School

The aim of this course is to give teachers a deeper insight into the subject-matter usually taught in the seventh, eighth, and ninth grades. Among the topics considered are: the nature of graphs, an intuitive and experimental approach in geometry, the arithmetic and algebra for social use and interpretation, approximate measures and mensuration, and integration with other subject fields. The course is open to all junior and senior high school teachers and those elementary school teachers who have had two years of high school mathematics.

Credit: 2 semester-hours

Mathematics 510A. Mathematics in its Relation to Other Fields of Knowledge: Social Sciences

This course examines some of the fundamental topics that are common to both mathematics and social studies and considers the integration of these topics in the secondary school curriculum. Topics studied include: measurement in social science; presentation of social data; use of index numbers; distribution of wealth and income; concept of utility; supply and demand curves; break-even charts; theory of interest and investment; probability and expectation, insurance, social security, and pensions; analysis of time series and business cycles.

Credit: 2 semester-hours

MATHEMATICS 510B. Mathematics in its Relation to Other Fields of Knowledge: Science, Art, and Music

In this course there are introduced such topics as mechanics and vector analysis, wave motion, geometrical optics, weather forecasting, mathematics in biology, chemistry, medicine, and geology; phyllotaxis (leaf arrangement in plants), spirals, laws of growth; static and dynamic symmetry, perspective, designs; and mathematics in music. Many of these topics should serve to enrich the background of secondary school teachers and encourage further study in special fields.

Credit: 2 semester-hours

MATHEMATICS 510C. Mathematics in its Relation to Other Fields of Knowledge: Geography, Astronomy, and Navigation

An opportunity is here offered for mathematics teachers to become acquainted with the mathematics of mapping, astronomy, and navigation closely related to the algebra, solid geometry, and trigonometry

taught in high school. A study of spherical geometry and trigonometry leads to topics in mathematical astronomy and geography, and to navigation. The discussion includes such topics as: latitude and longitude; time and the calendar; map projections; the making of star maps; sizes and distances of the sun, moon, planets, and stars; weighing the earth and moon; and relativity.

Credit: 2 semester-hours

MATHEMATICS 511A. Foundations of Geometry

A careful study is made of the fundamental postulates and basic principles underlying Euclidean synthetic and projective geometries. Past and present trends in this field and the resulting modifications are considered in connection with the historical background of each. Finally, the development of the subject is briefly traced through certain fundamental groups of associated theorems and their generalizations.

Credit: 2 semester-hours

MATHEMATICS 511B. Non-Euclidean Geometry

The development of Hyperbolic-Non-Euclidean and of Elliptic Non-Euclidean geometry is carefully traced. A brief survey of the historical development of each is given. This course is designed for teachers and students of mathematics who desire a better perspective of the field of geometry.

Credit: 2 semester-hours

MATHEMATICS 512. Methods of Approximation

This course deals with the determination of functions from observed experimental data. Among the topics considered are: finite differences, symbolic operators, differencing, interpolation formulae, the Gamma function, and the Euler-MacLaurin formula. The course is designed to show the nature of mathematics as an applied science.

Credit: 2 semester-hours

MATHEMATICS 515. Differential Equations

This course is a continuation of the calculus considered from a new view-point. Various applications of differential equations and their standard methods of solution are fully treated in this course. Among the topics included are: linear differential equations of the first degree and of the first and higher orders, linear equations of the nth order with constant coefficients, linear equations of the second order, exact and total differential equations, simultaneous equations, numerical approximation, and partial differential equations.

MATHEMATICS 516. The Theory of Functions

This course gives an introduction to the theory of functions of real and complex variables. This includes the properties of: continuity, differentiability, integrability, line integrals. Green's Theorem, Cauchy's Integral Theorem, and other general properties of analytic functions.

Credit: 2 semester-hours

MATHEMATICS 517. The Theory of Numbers

This course offers a systematic treatment of certain fundamental properties of numbers. It includes such topics as: properties of integers; prime numbers; composite numbers; factorization; relatively prime numbers; properties of congruences and their solutions; fundamental theorems of Fermat, Euler, Wilson, Gauss, etc.; primitive roots of a congruence; quadratic residues; and certain types of Diophantine equations.

Prerequisite: Two years of college mathematics

Credit: 2 semester-hours

MATHEMATICS 521. Analytical Mechanics

The fundamental basic principles of this course are Newton's laws of motion, whose applications and consequences are carefully considered in the study of such topics as: the composition and resolution of forces, the statics of a particle and of a rigid body, forces acting upon a body, friction, straight line motion, curvi-linear motion, work and energy, moment of inertia, etc. The need and usefulness of mathematics for the explanation of physical phenomena are clearly shown.

Prerequisite: Elementary calculus

Credit: 2 semester-hours

MATHEMATICS 523. The Theory of Probability

In this course the applications of the theory of probability to life insurance, statistics, mechanics, and genetics are stressed. Special attention is paid to the implications of probability in secondary school mathematics, and to the teaching of probability in the senior high school. The ideas of choice in combinations and permutations are developed. The intuitive ideas and the classic paradoxes in the historical development of the theory are also considered. Additional topics considered are: continuous probability, the normal probability curve, and geometric probability. It is assumed that students taking this course have an understanding of college algebra and the elementary ideas of calculus.

MATHEMATICS 524. Statistical Inference and Sampling Theory

In this course the student considers the planning and execution of a statistical study. Among the topics considered are: moments and moment generating functions; binomial, Poisson, and normal distributions; the general theory of sampling; student's distribution; chisquare distribution; analysis of variance and co-variance; statistical control; and the design of experiments. The development of statistical reasoning is an important aim of the course. Applications are given to industrial, scientific, and social data.

Prerequisite: Mathematics 408

Credit: 2 semester-hours

MATHEMATICS 528. Mathematics Materials for Student Activities and Club Programs

This course analyzes some of the large amount of material available for individual and club activities in mathematics. Mathematical recreation, plays, topics for essays or club programs, and popular books on mathematics are studied. The material considered varies from elementary arithmetical recreations for the elementary school to topics involving advanced mathematical ideas. Topics considered are: recreations; arithmetical, geometrical, and logical problems in arrangement, polyhedrons and crystallography, classical problems of antiquity, cryptography, magic squares, topological and unicursal problems.

Credit: 2 semester-hours

MATHEMATICS 529. Curriculum Construction in Mathematics

This course is conducted as a workshop or seminar in constructing curricula in mathematics. The chief objective of the course is cooperation with those communities which are planning changes in their courses of study. Among the topics considered are: the selection of aims, a study of recent courses of study in mathematics, the reports of various commissions, and other research pertinent to the questions at issue.

Credit: 2 semester-hours

MATHEMATICS 530. Mathematical Materials and their Applications in the Teaching of Mathematics

In this course the student considers the adaptation and use of multisensory materials to motivate and improve the teaching of high school mathematics. Particular attention is given: to the equipment needed for the modern mathematics laboratory and how it may be effectively used; to plans for the extra-curricular activities in mathe-

matics, such as mathematics clubs and assembly programs; to such visual aids as pictures, lantern slides, motion pictures, and bulletin board exhibits; and to the books, periodicals, and pamphlets needed for the school and the teacher's library.

Credit: 2 semester-hours

MATHEMATICS 531. Survey of Higher Mathematics

The principal aim of this course is to give the student some insight into the nature and content of various fields of higher mathematics. This includes a discussion of the basic structure and framework of the following branches of higher mathematics: foundations of logic, higher algebra and algebraic theories, theory of groups, synthetic and analytic projecture geometries, differential geometry, N-dimensional geometry, topology, vector analysis, and calculus of variations.

Credit: 2 semester-hours

MATHEMATICS 601. Workshop: Current Problems in the Mathematics Field

This course is conducted as a workshop for the solution of such actual problems in the teaching of mathematics as: courses in mathematics for the general and for the specializing student; integration of mathematics with other courses; revision of subject-matter in particular fields, such as in plane geometry; and research problems in specific units of work. The class meets for conferences, reports, and lectures. Individual conferences between the instructor or consultant and each individual member of the class are held by appointment.

Credit: 3 semester-hours

SENIOR-GRADUATE COURSES

For more complete descriptions of these courses see the undergraduate catalog.

MATHEMATICS 401. The Teaching of Mathematics in Secondary Schools

The student studies the methods of teaching the different units of work in the junior and senior high school. He accompanies this study by observing in the College High School the ways in which these methods are put into practice.

MATHEMATICS 402. Applications of Mathematics

The student is taught how to use and adjust those modern instruments of precision which can be used to motivate the teaching of mathematics in the junior and senior high school. Included among these are the slide rule, transit, sextant, planimeter, plane table, solar telescope, and astronomical telescope with equatorial mountings. Such early instruments as the astrolabe, hypsometer, baculum, and optical square are also considered.

Credit: 4 semester-hours

MATHEMATICS 404. Readings and Lectures in Mathematics

Lectures are given upon advanced topics in mathematics and on those phases of mathematics which are finding new applications, especially as they are related to the secondary field.

Credit: 2 semester-hours

MATHEMATICS 405. The History of Mathematics

A cultural background in the field of elementary mathematics is furnished by this course. Emphasis is placed on the history of the development of the number systems of elementary mathematics, computational devices, mathematical symbolism, space concepts, and simple logical processes.

Credit: 2 semester-hours

MATHEMATICS 406. Solid Analytic Geometry

A review and extension of the theory of determinants, a study of lines and planes in space, of space coordinates, transformation of coordinates, loci in space, the sphere, and of quadric surfaces are considered in this course. The study of the general quadratic equation in three variables, invariance under motion, and the classification of numerical equations completes the course.

Credit: 2 semester-hours

MATHEMATICS 407. Advanced Calculus

A study of continuity, the theory of limits, the generalized theorem of the mean, and its extension to series with a remainder term is made in this course.

MATHEMATICS 408. An Introduction to Elementary Mathematical Statistics

This first course covers the usual topics in statistics using calculus as a major tool in the derivation of formulæ.

Credit: 2 semester-hours

MATHEMATICS 410. Mathematics of Finance

This course introduces the student to the elementary theory of simple and compound interest and leads to the solution of practical problems in annuities, sinking funds, amortization, depreciation, stocks and bonds, installment buying, and building and loan associations.

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DEPARTMENT OF SCIENCE

The teacher of secondary school science is faced constantly with the problem of maintaining his professional competence with respect to recent advances in the fields of science and science education.

The past two decades have brought forth an astonishing array of new discoveries in biology, chemistry, physics, and other branches of science. Entirely new scientific points of view have to be considered by a teacher who wishes to keep his classroom practices up to date with the most recent findings as reported in current newspapers, magazines, and books.

The unusual growth of enrollment in secondary schools has brought the science teacher numerous difficult problems of science education which require a more scholarly background than has been necessary in previous decades. It is clear that the demands to be made upon the science teacher in the near future will greatly exceed those of any previous decade. A thorough knowledge of science and secondary education is necessary to professional success and promotion.

Other factors operate to multiply the problems of high school science teachers. The rapid growth of work in science in elementary schools and the extraordinary growth of junior high school science preparation foreshadow a fundamental reorganization of the senior high school science program. This work is now well under way in many sections of the country. The courses offered here are designed to help the science teacher meet these changing needs.

Prior to matriculation in the Science Department for the Master of Arts degree the student should complete a subject matter background of thirty semester-hours of college science distributed in the areas of biology, chemistry, and physics. Deficiencies must be made up prior to the conferment of the A. M. degree. A minimum of eighteen semester-hours of graduate credit work in science is required. Science 401 and Science 404 will not be accepted toward meeting this eighteen semester-hour departmental requirement. Twelve of these eighteen semester-hours shall include courses carrying laboratory work or the equivalent. The student is required to take a minimum of six semester-hours in Integration courses including Integration 503, Methods and Instruments of Research. This usually leaves eight semester-hours free for electives. The student's work program is prepared in cooperation with the science adviser. Any changes in the student's work program are made only with the written approval of the science adviser.

BIOLOGY GRADUATE COURSES

BIOLOGY 501. The Teaching of Biology in Secondary Schools

This is a seminar and research course designed to give opportunity for study of the best methods and practices being used in the teaching of secondary school biology. Major topics of discussion are: aims of secondary school biology, course content, functions of textbooks, testing, laboratory exercises and demonstrations, and the collection and use of suitable and available laboratory materials. A study is made of recent research studies in the field of biology teaching.

Prerequisite: 18 semester-hours of work in biology

Credit: 3 semester-hours

BIOLOGY 508. Social Applications of Biology

This field-study course offers to teachers of science an opportunity to gain first-hand knowledge of the uses made of biological principles in industry and in modern laboratories. Field trips are designed to cover such varied interests as public health and hospital routine laboratories, medical botanical research laboratories, and the inspection of model industries developing biological products.

Prerequisite: 18 semester-hours of work in biology

Credit: 4 semester-hours

BIOLOGY 509. Field Studies of Flowering Plants

The emphasis of this course is placed upon the methods of identification of higher plants and the ecological factors affecting the growth and development of these plants. Plants in their winter conditions are considered first. As the season progresses, the emphasis changes from the identification of woody to herbaceous forms. Plant communities of various types are observed, and the factors influencing their development are discussed. Field trips are taken to such typical habitats as the Pine Barrens, Troy Meadows, Raritan, and others. The preparation of herbaria is stressed, and techniques for making leaf and twig collections are demonstrated.

Prerequisite: General botany

Credit: 4 semester-hours

BIOLOGY 402. Mammalian Anatomy and Histology

A study is made of the gross structure of a typical mammal and of the structural peculiarities of its various tissues. This course prepares the student for the study of human physiology.

Prerequisites: BIOLOGY 201 and 202, zoology

BIOLOGY 406. Animal Histology

This course includes a careful study of histological technique as illustrated by preparations made from various animal tissues.

Prerequisites: BIOLOGY 201 and 202, zoology

Credit: 4 semester-hours

BIOLOGY 407. Comparative Embryology

A study is made of the stages in development and factors influencing the development of different types, particularly the vertebrates. Students in this course follow carefully the development of the chick through the earlier stages.

Prerequisite: Biology 402, mammalian anatomy and histology

Credit: 4 semester-hours

BIOLOGY 408. Biological Technique

This course is designed to furnish the prospective teacher of biology with the technical details necessary to enable him as a secondary school teacher to handle successfully biological materials and experiments and demonstrations in which these materials are employed.

Prerequisites: Biology 101 and 102, botany, and Biology 201 and

202, zoology

Credit: 4 semester-hours

BIOLOGY 409. Human Physiology

A study is made of normal and abnormal physiology based on previous study of mammalian anatomy. In addition to an analysis of the part played by organs and tissues in carrying out the essential functions of the body, special attention is given to problems of hygiene and sanitation.

Prerequisite: A course in comparative anatomy or Biology 402

Credit: 4 semester-hours

Biology 410. Comparative Anatomy of the Vertebrates

The aim of this course is to trace the probable course of evolution of the vertebrate type with partial reference to the history of the human body.

Prerequisites: BIOLOGY 201 and 202, zoology

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BIOLOGY 412. Genetics from Mendel to Lysenko

This course considers the scientific basis of the gene concept and its support in experiment from Mendel's work to the present allegations of the Lysenko school. Documents of some of the milestones in the history of the science are studied, and the adherence to scientific method is carefully noted. The wide uses of the science in plant and animal improvement and the discoveries related to man's heredity make an integral part of the study. The course helps the teacher of biology or social studies to discriminate between what is scientifically known and what is political philosophy in genetics. Laboratory exercises supplement lectures and discussion.

Prerequisite: A course in college biology

Credit: 2 semester-hours

BIOLOGY 413. Economic Botany

The discussion of the importance of plants and plant life to the world in general and to man in particular is the principal aim of this course. The economic importance of bacteria, fungi, and other lower plants is considered as well as that of the seed plants. The student should have a knowledge of general botany for an understanding of this course.

Prerequisite: One year of general botany

Credit: 2 semester-hours

CHEMISTRY

GRADUATE COURSES

CHEMISTRY 501. The Teaching of Chemistry in Secondary Schools

This course satisfies the requirements in the teaching of chemistry for the limited secondary certificate. A study is made of the objectives, recent trends, methods of presentation, courses of study, lesson planning, instructional aids, and subject matter of high school chemistry.

Prerequisite: 18 semester-hours in chemistry

Credit: 3 semester-hours

CHEMISTRY 508. Advanced Organic Chemistry—Biochemistry

In this course a study is made of the composition of living organisms, their nutritional requirements, their mechanism for promoting and regulating chemical action, and their metabolism of foods. A

laboratory study is made of the components of foods, enzyme action, isolation of proteins, etc., blood and urine analysis.

Prerequisites: Chemistry 405 and 406, organic chemistry

Credit: 4 semester-hours

CHEMISTRY 509. Advanced Inorganic Chemistry

This course offers opportunity for intensive and systematic study of the elements in the light of the periodic classification. Selected theories and principles of inorganic chemistry and some of their applications are studied in detail. A study is made of compounds. Directed use of chemical literature is an important part of this course. Individual experimental work in the laboratory consists chiefly of preparation and purification of inorganic compounds and testing for impurities.

Prerequisite: A course in quantitative analysis

Credit: 4 semester-hours

CHEMISTRY 510. Food Inspection and Analysis

A study is made of the composition of commercial food products, the laws governing purity and marketing of foods, methods of analysis of foods and cosmetics, and the judging of foods for quality.

Prerequisites: Organic chemistry and quantitative analysis

Credit: 4 semester-hours

SENIOR-GRADUATE COURSES

Chemistry 405. Organic Chemistry, Part I

The course covers the chemistry of carbon compounds and gives increased facility and experience in manipulating complicated chemical apparatus. It treats of the role of chemistry in life processes, including the synthesis and adaptation of carbon compounds in industry, in medicine, and in daily living. The first semester's work covers the chemistry of simple chain compounds and includes fats and carbohydrates.

Prerequisites: Chemistry 101 and 102, general college chemistry

CHEMISTRY 406. Organic Chemistry, Part II

The work of this course covers the chemistry of multiple functional chain compounds, the ring compounds, vitamins, hormones, and the application of these compounds in industry, in foods, and in medicine.

Prerequisites: Chemistry 101 and 102, general college chemistry

Credit: 4 semester-hours

CHEMISTRY 407. Advanced Quantitative Analysis

This course is adapted to the needs and preparation of students. The student, after consultation with the instructor, may select analyses from the following: general or special types of oxidation-reduction; gravimetric methods; colorimetric methods; use of organic reagents in analyses; electrometric titrations; conductimetric titration; spectrographic methods of analysis; electrodeposition of metals; and special methods of analysis.

Prerequisites: General college physics and one semester of quantitative analysis, or special permission of the instructor

Credit: 4 semester-hours

CHEMISTRY 408A. Industrial Chemistry, Part I

The purpose of this course is to enable science teachers to understand the type of chemical industries in the State of New Jersey and the nature of their problems. A survey is made by lectures, reports, and trips to plants of the chemical industries in the State. This section of the course stresses the importance and the characteristics of chemical industries, the various unit operations used by the industries to carry out chemical reactions, the controls used to insure quality, organization for research, and the type of workers employed.

Prerequisites: General and organic chemistry, or special permission of the instructor

Credit: 2 semester-hours

CHEMISTRY 408B. Industrial Chemistry, Part II

This course is a study of the chemical industries of the metropolitan area utilizing the methods outlined in Chemistry 408A. Also, a study is made of the economics of chemical industry, chemistry and industry in general, and the effects of chemical discoveries upon living conditions.

Prerequisites: General and organic chemistry, or special permission of the instructor

CHEMISTRY 411. Physical Chemistry, Part I

This course, the first half of a year's work in physical chemistry, deals with gases, liquids, crystals, physical properties and electrolytes, colloids, thermochemistry, and homogeneous and heterogeneous equilibria.

Prerequisites: Chemistry 101 and 102, general college chemistry, Chemistry 202, analytical chemistry, and Physics 101 and 102, general college physics

Credit: 4 semester-hours

CHEMISTRY 412. Physical Chemistry, Part II

This course deals with electrical conductance, electrolytic equilibrium, electromotive force, electrolysis, polarization, chemical kinetics, photo-chemical reactions, atomic structure, molecular structure, and radioactivity.

Prerequisites: Chemistry 101 and 102, general college chemistry, Chemistry 202, analytical chemistry, and Physics 101 and 102, general college physics

Credit: 4 semester-hours

CHEMISTRY 413. Atomic Structure and Atomic Energy

This is a lecture course designed to familiarize the student with a modern conception of the structure of matter and to acquaint him with some significant aspects of atomic energy. Some of the topics studied include the following: discoveries leading to knowledge of the structure of the atom; isotopes; nuclear fission; nuclear reactions; chemical versus atomic explosions; the chain-reacting pile; production of plutonium; detection and measurement of nuclear radiation and incendiary effects of atomic explosions; atomic energy for peace-time uses; radioactive isotopes in agricultural, biological, and chemical research; and availability of materials for atomic energy.

Prerequisites: General college chemistry and general college physics, or special permission of the instructor

Science 75

PHYSICS

GRAUATE COURSES

Physics 510. Advanced Problems in Photography

This course is intended to meet the needs of the camera club teacher and the hobbyist. The course includes negative and positive alterations, toning, printing processes, studio portraits, color photography, and photomicrography. The student is expected to submit prints of exhibition quality for public showing.

Prerequisites: General college physics, general college chemistry, and a first course in photography

Credit: 4 semester-hours

Physics 511. Electronics and Electron Tubes

It is the aim of this course to give an understanding of the basic principles of electronics. Such appliances as radio tubes, cathode-ray tubes, photo-electric cells, and X-ray tubes with applications in medicine are considered.

Prerequisites: General college physics and a course in electrical measurements

Credit: 4 semester-hours

Physics 512. Modern Physics

This course is a survey of recent experimental research in physics and of the newer theories concerning nuclear physics and electricity. Such topics as atomic spectra, radioactivity, artificial transmutation of the elements, and cosmic rays are discussed.

Prerequisites: General college physics, general college chemistry, and a course in electrical measurements

Credit: 4 semester-hours

Physics 513. Nuclear Radiation

A study of the nature of radiations is made. Particular attention is made to radiation measurement technique. The course is concluded with a study of health physics as related to radiation dosages and their effects. Some attention is paid to disposal of radioactive wastes, radiation protection, and safety precautions.

Prerequisites: General college physics, general college chemistry, and a course in electrical measurements

SENIOR-GRADUATE COURSES

Physics 402. Advanced Electricity

The most important aims and purposes of the course are as follows: (1) to provide a substantial background of training in the fundamental laws and principles governing the generation and use of electricity; (2) to develop skill in manipulating laboratory and demonstration apparatus; and (3) to offer opportunity for the exercise of originality in devising methods for the interpretation of experimental data.

Prerequisites: Physics 101 and 102 and Chemistry 101 and 102

Credit: 4 semester-hours

PHYSICS 405. Light and Optical Instruments

Topics included for study in the classroom and laboratory are: the propagation of light; emission and absorption of radiant energy; reflection, refraction, polarization; spectrum analysis; photometric measurements; photoelectric cells; measurement of high temperatures; characteristics of illumination, modern illuminants; and industrial and domestic uses of light.

Prerequisites: General college physics and a course in electrical measurements

Credit: 4 semester-hours

Physics 406. Astronomy

The course consists of a study of the fundamental principles of the science of astronomy. Such topics as the following are considered: motions of the earth; time; the moon; law of gravitation; the planets; comets; meteors; the sun; evolution of the solar system; the constellations; distances and motions of the stars; spectrum analysis; and telescopic observations.

Prerequisites: General college physics and college chemistry

Credit: 4 semester-hours

Physics 407A. Aviation, Part I

This course deals with the historical development of aviation, air traffic rules, airworthiness regulations, pilot certification, types of aircrafts, aircraft structures, principles of aerodynamics, lift, drag, stability, motions of an airplane, piloting, motorless flight, and air-

craft engines. Flight experience is made available as a part of this course.

Prerequisite: General college physics

Credit: 2 semester-hours

PHYSICS 407B. Aviation, Part II

This course continues the study of the topics considered in Physics 407A and also develops an understanding of power performance, propellers, engine instruments, and flight instruments. Flight experience is made available as a part of this course.

Prerequisite: General college physics

Credit: 2 semester-hours

Physics 408. Advanced Aviation

This course consists of the study of navigation; meteorology as applied to flight operations; radio communications; flight and navigational radio aids; instrument flights; jet, turbojet, and rocket flight; and recent advancement in aviation.

Prerequisite: Physics 407

Credit: 4 semester-hours

Physics 409. Introduction to Radio Communication

This course deals with direct and alternating current circuits; construction and operation of detectors; characteristics of audio and radio frequency amplifiers; vacuum tubes; and two-way communication in aviation.

Prerequisites: General college physics and a course in electrical measurements

Credit: 4 semester-hours

Physics 410. Physical Principles in Automotive Transportation

This course deals with the following topics: engine theory and design, cooling system, ignition, fuel system, motors and generators, wiring and lighting, storage battery, and transmission.

Prerequisites: General college physics and a course in electrical measurements

Credit: 4 semester-hours

Physics 411. Photography

This course consists of laboratory work and field work supplemented by lectures and demonstrations. Emphasis is placed on

physical principles in the construction of cameras, projection printers, tanks, and filters. Special attention is given to chemical principles in the development of films and paper, toning, intensification, and reduction

Prerequisites: General physics and general chemistry

Credit: 4 semester-hours

SCIENCE GRADUATE COURSES

Science 504. Survey of Recent Investigations in Science Teaching

This course deals with published and unpublished investigations in the field of science education. Studies of demonstration methods, curriculum construction, scientific vocabularies of texts, laboratory design, measurement of the outcomes of learning, laboratory apparatus, prediction of success in college courses, methods of visual instruction, and other topics are considered.

Prerequisite: State certification in science

Credit: 4 semester-hours

Science 505. Science Workshop for Junior and Senior High
Schools

This course is designed to assist principals, supervisors, and teachers to organize and develop a program of science courses in keeping with present-day science knowledge and the interests of students in recent scientific developments.

Prerequisite: State certification in science

Credit: 4 semester-hours

SENIOR-GRADUATE COURSES

Science 401. The Teaching of Science in Secondary Schools

The chief purposes of this course are: to review the educational objectives of science in public schools; to consider a program of instruction planned for all grades of the public school system; to study the chief aids to instruction such as texts, manuals, workbooks, tests, and materials for the enrichment of teaching; to make a critical review of standards of classroom and laboratory instruction; to observe junior high school classes at work in science; and to participate in classroom activities in biology, chemistry, and physics

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prior to student-teaching. This course is required of all undergraduate science majors.

Prerequisites: See the undergraduate bulletin for required courses in biology, chemistry, and physics

Credit: 3 semester-hours

Science 401D. The Teaching of Aviation in Secondary Schools

This course covers the study of State aviation programs, texts, bulletins, free material for school use, demonstration equipment, tests, working models, visual aids, and references needed to teach aerodynamics, aircraft engines, meteorology, navigation, and aircraft communication in high schools. Field trips to airports and aviation industries are included.

Credit: 2 semester-hours

Science 404. Problems in the Teaching of Science

When a student has completed the assignment in student-teaching in a public high school in the State of New Jersey and has accumulated some experience with the problems of high school science instruction, he returns to the college campus for an intensive study of a limited number of problems in a single field of science.

Prerequisites: See the undergraduate bulletin for required courses in biology, chemistry, and physics

Credit: 2 semester-hours

Science 405. Field and Laboratory Studies in Science

This integrated course is designed to show the relationship in the geological rock formations, the types of soil, water patterns, plant communities, and animal inhabitants in northern New Jersey, and the effects on human occupations. The field trips are for the purpose of gathering data and materials for intensive work in the laboratory. The experiments are designed to give the student acquaintance with the science of common but possibly unstudied features of the landscape, e.g., soils are reproduced in profile and examined microscopically, physically, and chemically; water from a variety of sources is tested for biological and chemical impurities; the census of plant and animal inhabitants of typical areas is associated with relevant factors in the environment. Discussions precede and follow the field and laboratory work to establish the probable history of the area and to suggest the probable trend, whether advancing or retrogressing. of its development. Stress is placed on the kinds of human control in specific communities which would best serve their progress.

Students are asked to submit an analysis of the geological and biological features of some known community, based on the skills and principles involved in the course. Some other objectives of the course include an understanding of the organization of school museums for learning purposes, the making of ecological maps and illustrating them with photographs and diagrams, and the techniques of ecological field trips. Two instructors, a chemist and a biologist, collaborate in giving this course.

Prerequisite: Proficiency in biology and chemistry

Credit: 4 semester-hours

Science 410. Junior High School Science Demonstrations

This course covers the methods of experimental instruction in grades seven, eight, and nine. A detailed study is made of about three hundred demonstrations.

Prerequisites: General college chemistry, college physics, and a course in general biology

Credit: 4 semester-hours

Science 411. Problems in Field Studies in Science

In this course each student selects a phase of field science in which he does advanced research under the guidance of the instructor. Plant ecology, bird-life, pond life, fungi, tree diseases, and insect life are a few of the areas from which the student may choose.

Prerequisites: Science 405, Field and Laboratory Studies in Science, or its equivalent plus at least 12 points in biology

Credit: 2 semester-hours

Science 412. Field Studies in Science: Biological

Emphasis in this course is given to the ecology, life-history, and identification of plant and animal communities (terrestrial and aquatic) with an introduction to their conservation.

Credit: 2 semester-hours

Science 413. Field Studies in Science: Physical

Emphasis in this course is given to local and New Jersey geology, minerals, soils, and waters, with emphasis on the chemical and physical aspects of soil and water. Field trips are taken through the Kittatinny Mountains and to the Delaware Water Gap.

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Science 414. Conservation of Plants and Animals

The social, economic, and ecological implications of plant and animal conservation are considered together in this course. Discussion periods are interspersed with field trips to forests and wildlife management areas. Co-operating experts from State and Federal agencies bring special contributions in their fields. Visual aids are used extensively.

Credit: 2 semester-hours

Science 415. Conservation of Soil and Water

The social, economic, and ecological implications of soil and water conservation are considered together in this course. Discussion periods are interspersed with field trips to selected areas. Outside experts bring special contributions in their fields. Visual aids are used extensively.

Credit: 2 semester-hours

Science 416. Problems in Conservation

In this course, a student or a group of students selects a phase of conservation in which he or the group does original research, either at the School of Conservation or within New Jersey. The research may be done any time during the summer with the approval of the instructor. This course is intended primarily to encourage individuals or groups from institutions of higher learning in New Jersey to use the School of Conservation as a base for research in conservation. Enrollment is limited and subject to advanced approval. Fees are determined by the number of hours of credit allowed and the number of days or weeks spent in research.

Credit: To be determined by length of stay and nature of problem

DEPARTMENT OF SOCIAL STUDIES

The teacher of social studies works in a field the boundaries of which are constantly changing and expanding. The necessity for constant study, especially with regard to the contemporary social situation and its problems, presses upon every secondary school teacher of the social studies. The Social Studies Department at Montclair intends to provide for such teachers courses of an advanced character which will help to keep them abreast of the changes in a changing world. It also will provide advanced courses for those teachers who wish to increase their preparedness in specialized secondary school subjects. Finally, it aims to provide for the teacher-in-service an opportunity for keeping informed concerning the changing techniques and problems of teaching the social studies. Selections from advanced courses of the sort just described lead to the Master's degree in the social studies.

In order to qualify for the Master's degree in social studies, candidates will either prepare a thesis or pass an oral examination based upon a selected field of research. They will earn at least eighteen semester-hours of credit in social studies courses on the 400 or 500 level, selected with the approval of the Head of the Department. They must submit credits equivalent to an undergraduate major in social studies, totaling at least thirty semester-hours, as a prerequisite to matriculation for graduate study.

GRADUATE COURSES

Social Studies 502. The Origin and Development of the American Constitution

This course is an intensive study of the origin and framing of the Constitution of the United States. It aims to search out the roots and influences that determined our basic political institutions. The seminar method is employed and attention is given to the techniques of historical research and historical writing.

Credit: 2 semester-hours

Social Studies 506. The British Empire from 1783

This course deals with the evolution of the British Empire from the period of the old Colonial system to the present British Commonwealth of Nations. The rise of dominion government, the forces of anti-imperialism, and the various solutions suggested from the improvement of imperial relations are stressed.

Social Studies 515. History of Political Thought

The major theories of representative political philosophers concerning the nature, functions, organization and sovereignty of the state are studied in this course. Among those discussed are: Plato, Aristotle, Cicero, Thomas Aquinas, Machiavelli, Luther, Calvin, Bodin, Hobbes, Locke, Spinoza, Montesquieu, Rousscau, Hume, Bentham, J. S. Mill, Burke, Hegel, Marx.

Credit: 2 semester-hours

Social Studies 517. Money and Banking

An opportunity is provided for an analysis of the monetary and banking principles and practices basic to modern economic organization. Consideration is given to the various theories of money, the relation of money to prices, banking systems and their operation, and the nature and significance of credit. Special attention is directed to an examination of the functioning of the Federal Reserve System in relation to the gold standard, a managed currency, stability, inflation and deflation.

Credit: 2 semester-hours

Social Studies 518. Recent Trends in American History (1918 to the present)

Without attempting to reach final conclusions, this course analyzes the major problems which have influenced American life since the First World War. The new position of the nation in world affairs, the modifications of the old economic order, the progress of social and political change are all surveyed. While the treatment is historical, it is intended to present materials which are serviceable in teaching the Problems of American Democracy.

Credit: 2 semester-hours

Social Studies 522. The Development of Economic Institutions and Ideas

This course deals with the changing principles, institutions and ideas which determine the character of economic society. The doctrines of the more important schools of economic thought such as the Classical, Historical, and Institutional groups are emphasized, and the teachings of the Mercantilists, Physiocrats, Adam Smith, Malthus, Ricardo, Marx, Henry George, Veblen, Hobson, Commons, Keynes, and others are examined in relation to the important problems of money, credit, prices, business cycles, foreign and domestic commerce, property, wages, the nature of wealth and value, and economic planning.

Social Studies 523. The Economics of the Business Cycle

The purpose of this course is to consider the nature of business cycles and their impact on the national economy, to survey business cycle theories, and to analyze the significant proposed methods of control for the purpose of developing a desirable public program conducive to economic stability.

Credit: 2 semester-hours

Social Studies 524. The Economics of Public Fiscal Policy

This is a course for the mature student interested in the effect of government tax policies on the national economy. Consideration is given to the various theories of justice in taxation: the incidence and shifting of the tax burden; the constitutional aspects of government finance; fiscal policy and full employment; taxation and economic inequality; the economics of public borrowing; and management of the national debt. Particular emphasis is placed on the conflicting issues which have arisen from the increasing encroachment of public finance on both business and the consumer due to war and recurrent depressions. Attention is also given to such special programs as the Marshall Plan and aid to underdeveloped economic areas.

Credit: 2 semester-hours

SENIOR-GRADUATE COURSES

For more complete descriptions see the undergraduate catalog.

ANCIENT AND MEDIEVAL HISTORY

Social Studies 421. Oriental Civilization

This course presents the important contributions to civilization and social progress made in antiquity in three great centers of the Near East: Egypt, Mesopotamia, and Crete.

Credit: 2 semester-hours

Social Studies 422. Greek Civilization

The aim of this course is to present the development of Greek civilization from the earliest period to the beginning of the Christian era.

Social Studies 423. Roman Civilization

This course traces the social changes in Rome from the earliest times to the end of the Western Roman Empire. The rise and fall of the empire are discussed with relation to their importance in medieval civilization.

Credit: 2 semester-hours

Social Studies 424. Medieval Civilization

This course aims to trace the history and civilization of the different races which wandered about and finally settled in Europe during the medieval period.

Credit: 2 semester-hours

Social Studies 426. Medieval History to 1498

In the first part a study is made of the factors contributing to the political breakdown of the imperial principle, such as the growth of Christianity, barbarization of the West, and the expansion of Islam. The second part is devoted to the developments in Western Europe after 1200, stressing political movements, medieval commerce, guilds, growth of towns, and cultural changes.

Credit: 4 semester-hours

Social Studies 427. Ancient History to 378 A.D.

The first part of this course covers the Oriental period and the Greek through the Periclean Age. The second part covers the Hellenistic period from the rise of Philip of Macedon, stressing attempts at federalism.

Credit: 4 semester-hours

Social Studies 473. The Arts in Western Civilization

This course is designed to show how the social, economic, political, and religious movements in Western Civilization influenced the aesthetic expression of Europe from the Golden Age of Greece to the Rise of the Industrial Revolution. Greek, Roman, Byzantine, Gothic Baroque, and Rococo art, architecture, and music are discussed and illustrated.

MODERN EUROPEAN HISTORY

Social Studies 414. Modern England

This course deals both with the historical periods as such and with the influences of the political, economic, and social forces in the English literature of the century. The Napoleonic era, political reform, factory reform, the humanitarian movement, the Irish question, the ministries of Gladstone and Disraeli, and the interpretation of politics and literature are considered.

Credit: 2 semester-hours

SOCIAL STUDIES 420. European Outlook

This course is designed to provide the background for understanding Europe today. The reality of ideological struggles between free and totalitarian countries is emphasized as a main source of present-day conflict.

Credit: 4 semester-hours

Social Studies 441. Economic History of Europe

The study of Europe from an economic point of view is particularly important in the light of present European problems and their relation to world-wide conditions. This course is a survey of the economic life and development of Europe from the emergence of the ancient civilizations to the beginning of the modern economic world.

Credit: 2 semester-hours

SOCIAL STUDIES 448. The British Dominions

This course deals with the role Canada, Australia, New Zealand, and South Africa are playing in present world affairs. Special emphasis is given to Canada and its dual position as an American state and a part of the British Empire.

Credit: 2 semester-hours

Social Studies 457. Development of Russia

Factors which have shaped the evolution of the Russian people, such as Byzantinism and the Greek Orthodox faith, the Synod, Tartar state organization, the Mir, Westernization from Peter to Lenin, Slavophilism, and dialectic materialism, are emphasized.

Social Studies 458. Russia as a World Power

An analysis of Russia's relations with China, Iran, Turkey, the European continent, England and the United States is presented. Marxist world policy, as interpreted by Kautsky, Plekhanov, Jaures, Bukharin, Trotsky, Lenin, and Stalin, is described.

Credit: 2 semester-hours

Social Studies 493. Western Europe Since World War I

This course presents an outline of the rise of communism and fascism and the reaction of the western democracies to these movements. The Civil War in Spain, the Munich Pact, the failure of the League of Nations, diplomatic events of the World War II era, United Nations problems, the North Atlantic Pact, and special problems of western defense are emphasized. An evaluation of western Europe's significance for the United States is attempted.

Credit: 2 semester-hours

UNITED STATES HISTORY

Social Studies 413. Economic History of the United States

The great trends and movements in agriculture, finance, commerce, manufacturing, transportation, and industrial relations are traced from their beginnings in the colonial period to their contemporary expressions in the present crisis.

Credit: 2 semester-hours

Social Studies 419. American Political Biography

This is the study of the life and influence of the leading figures in American political and social history. It is the aim here to show the relation of each of these characters to the times in which he lived and to point out how he influenced the trend of American life. The study includes such leaders as Washington, Jefferson, Hamilton, Webster, Lincoln, Cleveland, T. Roosevelt, and Wilson.

Credit: 2 semester-hours

Social Studies 438. The Literature of American History

A brief description of the material available for the study of American history is followed by class practice in finding and using the primary sources of some of the facts commonly taught in schools.

Social Studies 447. Diplomatic History of the United States

The purpose of this course is to show how we have become gradually conscious of our world interests and responsibilities, and the important role we have come to play in international politics.

Credit: 2 semester-hours

Social Studies 471. The United States Since World War I

This course surveys the major problems, economic, social, political, and international, which have marked our national development since the end of the first World War. It is intended especially for social studies seniors as a preparation for the second year of secondary school American history as provided for in the recently adopted state requirements.

Credit: 2 semester-hours

Social Studies 474. America in Transition

This course surveys rapidly the results of the Civil War and then emphasizes the major trends, economic and social, which have made modern America. It is intended as a more advanced study than that which is made in the undergraduate course. The period covered is from 1867 to around 1914.

Credit: 2 semester-hours

Social Studies 475. The History of American Thought

This course considers the influential thinking in America from the Mayflower Compact to the Marshall Plan to see how certain ideas or trends of thought have grown out of situations and have in turn helped to mould the course of our history. The student should gain an appreciation for the American contribution to world culture, and an examination is made of outworn stereotypes which exist today. The writings and discourses of important American thinkers are considered including Mather, Paine, Jefferson, Emerson, Thoreau, and Veblen.

Credit: 2 semester-hours

Social Studies 480. Social History of the United States

This course presents a study of the social and cultural aspects of American history. As such, it supplements but does not take the place of economic and political history. The course considers population movements and growth, rural and urban social problems, status of women, family life, utopian ventures, mass media of communication, amusements and recreation, and human rights.

THE AMERICAS

SOCIAL STUDIES 415. Latin-American Relations of the United States

This course aims to provide the information necessary to a clear understanding and accurate appreciation of the political, economic, and social relations that have developed between us and our Latin-American neighbors.

Credit: 2 semester-hours

Social Studies 417. American Archaeology

This course shows that the New World of the early discoverers was in reality far from new. The course discusses the prehistoric pueblo dwellers and early mound builders. The truly remarkable civilizations of the Mayas and the Incas are examined and compared with that of the Aztecs. North American tribes of Indians are also studied in order to evaluate their significant cultures.

Credit: 2 semester-hours

*Social Studies 435A. The Americas: A Contemporary Political, Economic, and Cultural Survey, Part I

This course deals specifically with the relations of the United States and the Caribbean countries. Attention is given to the dependencies of the United States in this region as well as to the independent republics. Twentieth century political, economic, and cultural developments of this region are stressed in light of the inter-American system.

Credit: 2 semester-hours

*Social Studies 435B. The Americas: A Contemporary Political, Economic, and Cultural Survey, Part II

This course deals specifically with the twentieth century political, economic, and cultural life of the South American nations. The role which the South American states play in world affairs is stressed. Attention is given to post-World War II developments and adjustments in South America.

Credit: 2 semester-hours

*Social Studies 440A and 440B. The Development of Central and South America as Colonies and Nations

The first part of this course surveys the period of exploration and settlement in the colonies of South and Central America. The second

^{*} Note: Courses $435\mathrm{A}$, $435\mathrm{B}$, $440\mathrm{A}$, and $440\mathrm{B}$ are independent courses; none is prerequisite for another.

part studies the experiences of the various Latin-American nations under different forms of government.

Credit: 2 semester-hours each

Social Studies 453A. The Development of Mexico and the Caribbean States

It is intended to show in this course the historical development of Mexico and the Caribbean nations in terms of their political, cultural, social, and economic progress in order to develop understandings and appreciations for their cultures and present-day problems. The relationships of their problems to those of the other American nations are stressed and placed in proper perspective.

Credit: 2 semester-hours

Social Studies 453B. The Development of Canada

This course is devoted to the study of the historical background, geographical environment, governmental organization, economic behavior, and social conditions of the northern neighbor of the United States. Its professional objective is to provide the understanding and appreciation necessary to the student and teacher who may follow and interpret the growth, internal and external, of the Dominion of Canada and of its relation to the United States as well as to the British Commonwealth of Nations

Credit: 2 semester-hours

INTERNATIONAL AFFAIRS

Social Studies 412. International Government

The attempts of the international community of states to express itself in a formal world organization are the subject of this course. The agencies which have been established to deal with international legislative, executive, administrative, and judicial problems are studied.

Credit: 3 semester-hours

Social Studies 434. Contemporary World Affairs

This course is devoted to a survey of the leading diplomatic, economic, political, and military issues before the world today. The backgrounds from which these international affairs have evolved are reviewed.

Social Studies 442. The Far East

A study is made of the economic, social and cultural situation of the Far East, with particular emphasis on the historical background of China and Japan, and on our relations with the Philippines.

Credit: 2 semester-hours

Social Studies 451. The Middle East

This course is a survey of Indian and Moslem civilizations. Postwar planning for the region from the Near East through Persia, India, Burma, Thailand, and Malaya to the Netherland East Indies is discussed.

Credit: 2 semester-hours

ECONOMICS

Social Studies 446. Current Problems in Economics and Government

This course is designed to analyze the relationship of economics to government. The causes and results of governmental activities are discussed in the light of their economic significance and their bearing on public welfare.

Credit: 2 semester-hours

Social Studies 450. Modern Economic Problems

After a brief recapitulation of the material contained in Social Studies 200A, Contemporary Economic Life, the class proceeds to make a detailed study of our broader economic problems and of the public policy relating to them. (Students who have had credit for Social Studies 450B should not enroll in this course.)

Credit: 2 semester-hours

SOCIAL STUDIES 454. Post-War Economic Reconstruction

The purpose of this course is to provide information necessary to appreciate the impact of reconstruction following the war upon existing economic institutions.

Credit: 2 semester-hours

Social Studies 456. International Economic Relations

The purpose of this course is to study the significance of international trade and exchange to the economic life of our nation and to the world economy.

SOCIOLOGY

Social Studies 428. Racial Contributions to American Life

This course deals with the basic problems of quantity, quality, and distribution of population and emphasizes the adjustments and maladjustments which result from the interrelations of Negroes, Asiatics, and various types of Europeans in the United States.

Credit: 2 semester-hours

Social Studies 429. Present-Day Social Problems

Beginning with a survey of levels of living in the United States and their relation to the distribution of wealth and income, this course proceeds with a study of poverty and crime, their sources, treatment, and prevention.

Credit: 2 semester-hours

Social Studies 439. The Family and Its Problems

This course gives a history of the family, our American family patterns, the effects of social change, marital patterns of interaction, social roles, sources of conflicts and frustration, divorce and desertion, special problems in family life, economics of children and the home, social legislation pertaining to family problems, marital adjustments, personality change after marriage, parent-child relationships, and personality reorientation.

Credit: 2 semester-hours

Social Studies 443. Youth and the Community

This course is a sociological study of youth in its many relations to the community. Special attention is given to problems which arise in the relationship of youth and the community; e. g., juvenile delinquency, conditions contributing to maladjustment, poorly adjusted children, and educational and social agencies active in solving youth behavior.

Credit: 2 semester-hours

Social Studies 444. The Social Bases of Human Relations

This course emphasizes the social bases of human nature and personality. Primary and secondary groups, folkways, mores, and institutions are considered.

SOCIAL STUDIES 455. Social Legislation

This course analyzes the social, economic, and political adjustments which have come about in our society due to technological progress.

Credit: 2 semester-hours

Social Studies 476. Personality Development and Group Relations

A study is made of personality growth through social contacts, the environmental factors found in the home and family, neighborhood, play, and school groups. Methods of measuring the place of the individual in the group, analysis of the group process, ways of bringing about better life adjustment, and integrating experiences are the subject matter of the course. Concrete cases of maladjustment to society and disintegrated personality are studied. Agencies in the community which serve youth are visited, and leadership in community group activities is recognized as part of the course requirements.

Credit: 2 semester-hours

Social Studies 477. Rural Sociology

During this course the student comes face to face with rural life in northern New Jersey. Social processes and problems are considered. Opportunities are provided for students to attend Grange meetings, county fairs, rural dances and parties, and to live for a day or two with a farm family.

Credit: 2 semester-hours

Social Studies 479. Education and Intercultural Relationships

Within our nation as within the world, along with common needs and interests, there exist differences between groups and individuals which act as barriers to satisfying human relationships. This course is devoted to a consideration of these barriers and of common interests and needs which exist in spite of such barriers. We study not only the existence of such conditions but also the attitudes, principles, and techniques which may make for better human relationships.

POLITICAL SCIENCE

Social Studies 402A and 402B. American and Comparative

The basic facts and principles necessary for the teaching of civics, history, and the political aspects of Problems of American Democracy are studied. The first part is devoted to American national government, including the obligations and rights of citizens, the suffrage, political parties, the changing nature of the Federal system, and the executive, administrative, legislative, and judicial systems. The second part deals with similar political phenomena in England, France, Germany, Italy, and Russia.

Credit: 2 semester-hours each

Social Studies 407. New Jersey State and Local Government

A study is made of the State Constitution; New Jersey's place in the Federal system; the rights and duties of citizens; suffrage; political parties; the legislative, the executive, and administrative systems; the courts, the law enforcement and correctional systems; revenues and expenditures; public health, educational, highway, and other services; county and municipal government; and other local political units.

Credit: 2 semester-hours

Social Studies 433. American Political Thought

This course deals with contemporary trends and theories as they have emerged from social and economic conditions and as they are founded upon the bases laid down by such men as Hamilton, Madison, Washington, Jefferson, Marshall, Calhoun, Webster, Lincoln, and Wilson.

Credit: 2 semester-hours

SOCIAL STUDIES 437. The Political Party System in the United States

Among the topics discussed are: party organizations, the political boss, the political machine, party finances, the process of voting, election laws, primaries, conventions, platforms, presidential elections, majority rule, the development of the party system, sectional politics, the farm vote, the labor vote, and the future of party government in the United States.

PHILOSOPHY

SOCIAL STUDIES 404. The Philosophy of History

It is the purpose of this course to investigate the relation of history to the other social studies and also the major attempts to find the meaning of history. A brief survey is made of the leading philosophies of history.

Credit: 2 semester-hours

Social Studies 470. History and Principles of Philosophy

This course presents a study of the history of philosophy and of the important principles contributed by outstanding philosophers from Thales to Gentile. Much of the discussion is centered on the three types of philosophic thought: naturalism, idealism, and pragmatism. Among the philosophers considered are: Plato, Aristotle, Bacon, Spencer, Rousseau, Hegel, James, Dewey, and Gentile.

Credit: 2 semester-hours

Social Studies 478. Theories of Social Justice from Antiquity to Our Time

This course is designed to show how specific ideas of social justice resulted from specific historical conditions and events. A comparison of social upheavals among the ancient Hebrews, Greeks, and Romans; the early Christians; the peasants in the Middle Ages; the religious rebels of the early Renaissance; and the revolutionaries of the modern age is to furnish background material for an understanding of present social thought. Lectures and discussions cover the social prophets of the Hebrews; Lycurgus; Cleomenes; Plato; Gracchus; Spartacus; the Essenes, the Waldensians, the Albigensians, and the Hussites; Wycliffe; John Ball; and on selected social thinkers of the last few centuries, such as Hobbes, Locke, Hume, Rousseau, the Utopians, the Socialists, and the Anarchists.

Credit: 2 semester-hours

EDUCATIONAL TECHNIQUES

Social Studies 401. The Teaching of the Social Studies in Secondary Schools

This course aims to present recent tendencies in educational method in teaching the social studies. A program is presented containing the correlation of subject-matter organization in socialized recitation, the teaching of current events, projects in citizenship, and the use of the project-problem as a method of teaching history and civics.

Credit: 3 semester-hours

Social Studies 472. Modern Social Studies Instruction and Supervision

This course is designed primarily to assist teachers and supervisors to obtain a comprehensive view of recent curriculum trends, current subject-matter tendencies, and newer practices in secondary school social studies. Topics discussed include: materials, methods, and techniques; use of audio-visual aids; courses of study and experimental problems; professional literature; and problems of the critic teacher and the supervisor.

Credit: 2 semester-hours

FIELD STUDIES IN AMERICAN LIFE

Social Studies 459. New Jersey and the Metropolitan Community

This is a sequel to Social Studies 302 and consists of an entirely different series of field studies. There are eight all-day field trips and seven two-hour class periods. The course is given on Saturdays, during both semesters when possible, and is open to all regular and part-time students as an elective. The field studies in the course cover comprehensively the geography of New Jersey and the lower Hudson valley with emphasis on the conservation of natural resources. Attention is also given to the cultural pattern of the region.

Credit: 3 semester-hours

Social Studies 460. Central Eastern Region

This fifteen-day tour of Pennsylvania, Maryland, Virginia, West Virginia, North Carolina, and Tennessee covers the major points of historic interest associated with the Colonial Period, the American Revolution, and the Civil War, and the geographic features of the coastal plain, the Piedmont, the Great Valley, and the Appalachian Mountains in these states. Travel is by modern chartered motor coach, and overnight stops are made at first-class hotels. Among the places visited are: Valley Forge, Philadelphia, Baltimore, Annapolis, Washington, Arlington, Alexandria, Mt. Vernon, Fredericksburg, Richmond, Washington's birthplace at Wakefield, Lee's plantation at Stratford, Yorktown, Williamsburg, Jamestown, Raleigh, Chattanooga, Asheville, Great Smoky Mountains, Norris Dam, Jefferson's Monticello at Charlottesville, Natural Bridge, Sky-

line Drive in the Shenandoah National Park, Luray Caverns, Winchester, Harper's Ferry, Frederick, Gettysburg, and the Pennsylvania Dutch area around Lancaster and Ephrata.

Credit: 3 semester-hours

Social Studies 461. New England and French Canada

This field study course gives an opportunity to study by direct observation the historical and geographical features of New England and the Province of Quebec. The trip, occupying the twelve days immediately following the summer session, is made in a modern chartered motor coach with overnight stops at first-class hotels. The route covers the lower Connecticut Valley, including Hartford, Springfield, Northampton, and Deerfield; the Rhode Island cities of Providence and Newport; historic Massachusetts towns such as Plymouth, Boston, Lexington, Concord, Salem, and Marblehead; the coast of New Hampshire and southern Maine; the White Mountains in the Mt. Washington and Franconia Notch area; the Canadian Province of Quebec, including the ancient French city of Quebec, Montmorency Falls, St. Anne de Beaupré, Montreal; the western shores of Lake Champlain, Lake George, and the Hudson River. It is an indispensable background for an understanding of Colonial and Revolutionary life and history in this region.

Credit: 3 semester-hours

Social Studies 462. Continental United States

This field study course consists of sixty-two days of directed travel. including all of July and August, and provides an opportunity for gaining an integrated view of our country as a whole. The trip is made in a modern chartered motor coach with overnight stops at first-class hotels. The route covers about 12,500 miles and visits 26 states and 6 National Parks. Among the major points of interest are Gettysburg, Natural Bridge, Blue Ridge and blue grass region Mammoth Cave, Lincoln shrines in Kentucky and Illinois, Dodge City, Royal Gorge, Pikes Peak, Denver, Rocky Mountain National Park, Taos and other Indian Reservations, Santa Fe, Petrified Forest, Painted Desert, Grand Canyon, Bryce and Zion National Parks, Hoover Dam, Los Angeles, Hollywood, San Diego, San Capistrano and other Missions, Tia Juana, Santa Barbara, Sequoia and Yosemite National Parks, Monterey, San Francisco, Sacramento, Lake Tahoe, Reno, Donner Pass, mammoth redwood groves, Crater Lake, Columbia River Valley, Portland, Seattle, Mt. Rainier, Grand Coulee Dam, Spokane, Butte, Yellowstone National Park, Salt Lake City, pioneer trails of Wyoming, Black Hills, Chicago, Detroit, Toronto and Niagara Falls. All important geographic and historical features are studied under the instruction of members of the college faculty and local specialists. Write for detailed descriptive folder.

Credit: 10 semester-hours

Social Studies 463. The Lower South

This is a fifteen-day field study course, covering the gulf coasts of Louisiana, Mississippi, and Alabama, and both coasts of Florida. Among the topics to be observed and studied are the Acadian and Creole culture in and around New Orleans; the industrial, historical, and recreational features of Biloxi, Mobile, and Talahassee; the tobacco, citrus, and sponge-fishing industries in the neighborhood of Tampa, St. Petersburg, Lake Wales, Sarasota, and Fort Myers; the plant and animal life of the Everglades along the Tamiami Trail; the millionaire playgrounds of Miami and Palm Beach; and the historical shrines of America's oldest city, St. Augustine. It is usually offered during the Christmas holidays.

Credit: 3 semester-hours

Social Studies 464. Southeastern Region and Gulf Coast

This is a twelve-day field study course covering the Atlantic Coast from Baltimore to Savannah and the Gulf Coast from Tallahassee to New Orleans. It surveys the economic, geographic, and historical aspects of the coastal plain, the piedmont, and the lower Mississippi Valley visiting, among other places, Richmond, Williamsburg, Charleston, Savannah, Tallahassee, Pensacola, Mobile, Biloxi, New Orleans, Baton Rouge, Natchez, Vicksburg, Jackson, Birmingham, Atlanta, Greenville, Charlotte, and Greensboro. It is offered during the Christmas holidays.

Credit: 3 semester-hours

Social Studies 492A and B. Studies in American Life—The East and the West

These courses comprise a unit designed to give the student an integrated understanding of the United States as a cultural, historic, geographic, social and political unit and, at the same time, an appreciation of the regional differences which characterize American unity in diversity. It should be useful to those who have traveled, to those who intend to travel, and to those who, although they cannot travel, wish to broaden their knowledge of our country. The geography, the history, the literature, the art, the music, the architecture, the people, the manners and customs, the flora and fauna, the economic, social, and political problems, and the significant personalities of the regions studied are discussed and illustrated with slides,

films, and other audio-visual materials. Either course may be taken without the other.

The subject matter of Social Studies 492A covers New England, the Central East, the South, and the Middle West east of the Mississippi River. The subject matter of Social Studies 492B deals with the regions west of the Mississippi, i. e., the Great Plains, the Mountain States, the Southwest, the Northwest, and California.

Credit: 2 semester-hours each

INSTITUTES AND WORKSHOPS

Social Studies 490. United Nations Institute

This course covers four and one-half hours per day for ten consecutive days excluding Sunday. It consists of basic lectures on factual backgrounds by the instructor, supplementary lectures by visiting lecturers from the United Nations and other organizations, discussions, workshop and library projects, demonstrations of the use of audio-visual materials, and field trips to the United Nations. Included among the subjects studied are the national state system, war and peace, world organizations (past, present, and proposed), the national armaments problem, international law, the international police proposal, pacific methods of settling international disputes, and the outlook for international co-operation.

Credit: 3 semester-hours

Social Studies 491. Workshop in Citizenship Education

In this course an attempt is made to study what has been done in some of the many projects in citizenship education throughout the country placing special emphasis on the plans and materials developed by the Citizenship Education Project conducted by Teachers College, Columbia University. Consultants are employed in presenting many points of view, and attention is given to programs and practices already in use in the schools. New means for citizenship education are sought; methods of evaluation are reviewed; and experience is given in the group processes essential to democratic action.

Credit: 2 semester-hours

SOCIAL STUDIES 499. China Workshop

A number of authorities introduce first-year students to the rise, growth, and maturing of Chinese civilization, as well as to the fundamental problems of China today, including the conflict of ideologies. The course is given in tweive days. Each day there are two hours of lectures in the morning; after lunch a period of forty-five minutes

is devoted to informal talks including further discussion on Chinese music, philosophy, Chinese school days, festivals, and calligraphy. Some time is also given to the singing of Chinese songs and the showing of motion pictures. During the two-hour workshop period the students prepare their projects, teaching units, and background material under the direction of faculty members.

Credit: 3 semester-hours

SOCIAL STUDIES 496A. The Chinese Society

This course is an intensive study of the formation of the Chinese people, their collective life, and the interaction of natural and human forces with the resultant social organizations from early times to the present. Particular emphasis is placed upon the development of social institutions, including the family, labor guilds, educational systems, and religious institutions, as well as their transformation and modernization under the impact of different forces from the West. There are twenty-four hours of lectures in the morning, and round-table discussion and library work in the afternoon.

Prerequisite: Social Studies 499, China Workshop

Credit: 3 semester-hours

Social Studies 496B. China: The Evolution of a Nation

This course is an intensive study of the Chinese civilization, the forces underlying the development of the national character of the Chinese people, their contacts and conflicts with other peoples and cultures from historical times to the present. Chinese folklore, folkways, biographies, and contributions to world civilization are considered. Because of its voluminous material, this course does not attempt to cover the whole span of Chinese history, but it is an integrated presentation of the maturing of the Chinese people as a nation. There are twenty-four hours of lectures in the morning, and round-table discussion and library work in the afternoon.

Prerequisite: Social Studies 499, China Workshop

Credit: 3 semester-hours

Social Studies 497. Chinese Philosophy

This course shows how the ancient philosophies, Confucianism, Taoism, Buddhism, Mohism, can be applied to the China of today and how they affect modern Chinese thought. There are twenty-four hours of lectures in the morning, and round-table discussion and library work in the afternoon.

Prerequisite: Social Studies 499, China Workshop, or an equivalent course in philosophy.

Social Studies 498. China and the Far East

This course is given in twelve days, two hours each morning being devoted to the discussion of contemporary Chinese problems and China's relations to her neighbors in the Far East; Japan, India, Korea, the Philippines, and Russia-in-Asia.

Credit: 3 semester-hours

ART 414. History of Chinese Art

For a description of this course, see page 102.

Credit: 3 semester-hours

English 459. A Survey of Great Chinese Literature

For a description of this course, see page 37.

OTHER COURSES THAT MAY BE USED AS ELECTIVES

For more complete descriptions see the undergraduate catalog.

ART 405. Art in the Metropolitan Community

This course gives to teachers in the various subject-matter fields an appreciation of the art resources of the major museums in Montclair, Newark, and New York; of art dealers' exhibitions in New York, and of industrial art products.

Credit: 2 semester-hours

ART 406. Creative Arts Workshop

This course offers experience in painting, drawing, sculpture, ceramics, and print making for students who wish to employ the creative visual arts in the teaching of other subjects. No previous art training is required.

Credit: 2 semester-hours

ART 408. Creative Painting

This course gives the student an opportunity to use the materials of the painter for personal creative experience. Oils, water colors, and poster paints are used. The student is encouraged to work in landscape, figure, and free imaginative composition. No previous art experience is necessary.

Credit: 2 semester-hours

ART 412. Pageant of Spanish-American Art

In this course art is treated as a cultural document. Illustrated lectures aim at an appreciation of the cultures of Spanish-America through contact with their rich artistic past and present.

Credit: 2 semester-hours

ART 413. Art in American Life

A survey is made of activity in the design arts from the early Colonial period to the present in relation to the course of development of the American community.

Credit: 2 semester-hours

ART 414. History of Chinese Art

In this course the developments and distinguishing characteristics of the major arts of China are traced by specialists and are surveyed from the point of view of their historical developments. There are twenty-four hours of lectures in the morning, and round-table discussion and library work in the afternoon. During the afternoon workshop period the technique of Chinese painting is demonstrated and taught by the noted Chinese artist, Professor Ya Chin Wang, whose paintings have been exhibited in the Metropolitan Museum of New York and other art centers in this country. No prerequisites are required.

Credit: 3 semester-hours

Geography 503. Economic Geography of the United States and Canada

A study is made of the agricultural, industrial, and commercial development of the United States and of the geographic factors that have contributed to that development.

Credit: 2 semester-hours

Geography 504. Economic Geography of Europe

This course constitutes a study of the economic development of the nations of Europe in relation to the environmental background and resources that have made Europe one of the world's leading continents.

Credit: 2 semester-hours

Geography 505. Principles of Anthropogeography

This course provides a survey of man's occupancy of the earth to determine the part that geographic environment has played in shaping the economic, social, and political developments of people.

Credit: 2 semester-hours

Geography 508. Physiography of North America

This is a study of the evolution of land forms in the large physiographic provinces of North America and their influence upon life activities.

Credit: 2 semester-hours

GEOGRAPHY 509. Economic Geography of Asia

This course constitutes a treatment of the economic and commercial development of the countries of Asia in relation to their natural environment.

GEOGRAPHY 405A and 405B. Climates of the World

This course embraces an explanatory comparison of the major types of climatic environment found in different parts of the world, and the factors controlling their distribution. Special attention is given to graphing, mapping, and the interpretation of climatic data.

Credit: 2 semester-hours each

GEOGRAPHY 406. Geology

This course deals with the earth and its geographic, stratigraphic, and structural development throughout geologic time; the record of the evolution of life as interpreted through a study of rocks and fossils.

Credit: 2 semester-hours

GEOGRAPHY 408A and 408B. Political Geography

This course deals with the geographic conditions influencing the significant changes in the political divisions of the world. Emphasis is placed on geographic factors influencing racial, religious, commercial, and political adjustments between nations.

Credit: 2 semester-hours each

GEOGRAPHY 409. Economic Geography of the British Isles

A comprehensive treatment of the resources of the British Isles is given, and the influence of the natural environment upon the utilization of those resources in the economic, social, and political development of the British Empire is evaluated.

Credit: 2 semester-hours

Geography 410. Economic Geography of Caribbean America

This is a study and interpretation of the major and important minor economic areas of Caribbean America in relation to the natural environment.

Credit: 2 semester-hours

GEOGRAPHY 411. Geographic Influences in American History

A study is made of the geographic factors influencing the development of social, economic, and political life in America.

Credit: 2 semester-hours

Geography of Africa, Australia, and New Zealand

A study is made of the activities of the people of Africa, Australia, and New Zealand in relation to their natural environment. Attention

is given to the influence of geographic factors upon the post-war adjustments and the possible future relations of these countries with the United States.

Credit: 2 semester-hours

GEOGRAPHY 413. Economic Geography of South America

This course constitutes a study of the influence of the natural environment upon production and utilization of resources in the economic, social, and political development of the various nations of South America.

Credit: 2 semester-hours

GEOGRAPHY 414A and 414B. Advanced Economic Geography

This course is a study of the influence of the physical environment upon the production of, the trade in, and the utilization of the important agricultural, forest, mineral and sea products, and the manufactured commodities of the world.

Credit: 2 semester-hours each

Geography 416. Conservation of Natural Resources

This course includes a study of the natural resources of the United States, their past and present exploitation, their influence on the development of the nation, their conservation and future use.

Credit: 2 semester-hours

GEOGRAPHY 417. Meteorology with Applications to Aviation

This course constitutes a study of the atmosphere, the sources of atmospheric heat, temperature variations and their relation to weather phenomena. Emphasis is placed on the nature of the large scale wind systems, air masses and fronts, and upon rainfall distribution.

Credit: 2 semester-hours

Geography 418. Regional Geography of North America

This course constitutes a detailed regional treatment of the continent of North America. Emphasis is placed upon the human activities of the various regions in relation to their natural environment and the relations of the regions to each other.

Credit: 2 semester-hours

Geography 419. Economic Geography of the Union of Soviet Socialist Republics

This course is designed to give a comprehensive and objective treatment of Soviet Russia's natural resources and industrial potential

in relation to the geographic environment. Special emphasis is given to the formative periods of Russia's industry to show the significance of and the continuous operation of geographical factors in the economic development of Russia.

Credit: 2 semester-hours

Music 401. The Teaching of Music in Secondary Schools

This course deals with the aims, content, and procedure in the teaching of music in the junior and senior high school.

Credit: 3 semester-hours

Music 405. Orchestra Conducting and Score Reading

This course aims to develop skills in orchestra conducting and score reading. It includes a study of the particular type of ear training needed in conducting, the technique of the baton, score reading, and interpretation.

Prerequisite: Music 305

Credit: 2 semester-hours

Music 406. Modern Music

This course aims to interpret modern music in terms of the social, political, and cultural life of our times. It includes a study of the music of Debussy, Richard Strauss, Schoenberg, Stravinsky, De Falla, Hindemith, Bartok, Shostakovich, and others. Special attention is given to the relation of modern music to other forms of modern art expression.

Credit: 2 semester-hours

Music 407. The Development of the Opera

This course deals with the origin, development, and characteristics of opera in the Italian, French, German, and Russian schools. Class analyses are made of representative operas of these schools. The content of this course is related to the Saturday afternoon broadcasts from the Metropolitan Opera, New York City. Special attention is given to building an ear repertory of operatic music heard over the radio.

Credit: 2 semester-hours

Music 408. Wagner Music Dramas

This course deals with the operas and music dramas of Richard Wagner. It includes a study of Wagner's artistic ideals and their application to his compositions.

Music 409. Counterpoint

This course aims to provide a practical treatment of counterpoint for music students. It includes analysis of the works of the sixteenth century masters of vocal polyphony with enough of original work to insure a grasp of the principles involved.

Prerequisite: Music 202

Credit: 2 semester-hours

Music 410. Composition

This course aims to develop the creative power of the student in the composition of small vocal and instrumental forms. Special attention is given to the functional aspects of composition in word setting, writing accompaniments, and improvisation.

Prerequisite: Music 202

Credit: 2 semester-hours

Music 413. Masters of the Symphony

This course aims to provide the student with an understanding and appreciation of the classic and romantic symphony through the study of the symphonies of Haydn, Mozart, Beethoven, Schubert, Schumann, and Brahms.

Credit: 2 semester-hours

Music 414. Modern Symphonic Forms

This includes a study of the post-romantic symphonies of Bruckner, Mahler, Dvorak, Franck, Tschaikowsky, and Sibelius; the symphonic poems of Strauss, Smetana, and Debussy, and the orchestral suites of Rimsky-Korsakoff, Ravel, and Stravinsky.

Credit: 2 semester-hours

Music 417. American Music

This course provides a survey of American folk and art music as related to various social, economic, political, and cultural epochs in the history of our country.

Credit: 2 semester-hours

Music 418. Music of Russia

This course provides a survey of Russian music from the Czarist regime to the modern Soviet. It aims to interpret Russian music in terms of the social, political, and cultural forces which have shaped it.

Music 420. The Art Song

This course provides a survey of the art song and includes a detailed study of the art songs of Beethoven, Schubert, Schumann, Brahms, Wolf, and Strauss. Special attention is given to the relation of music and poetry.

Credit: 2 semester-hours

Music 424. A Survey of Wind Instrument Music

This course includes a survey of music for solos, small ensembles, and full band with emphasis on the literature available for brass and wood wind players in high school. Members of the college band are available as a laboratory group so that the performance of all music under consideration is possible. Special attention is given to the music originally composed for wind instruments. New music of all publishers is available for examination and evaluation. The content of the course is determined in part by the needs of the teachers in the field.

Credit: 2 semester-hours

Music 425. Music of the Romantic Period

This course deals with the romantic spirit in music as expressed in the works of Schubert, Schumann, Mendelssohn, Chopin, Berlioz, Liszt, and others. It includes a study of program music, piano and song literature, and the rise of national schools of musical composition. Representative works are studied through performance, recordings, and radio listening. Special attention is given to parallel aspects of Romanticism in literature and the visual arts.

Credit: 2 semester-hours

Music 426. Survey of Music Literature

This is a survey course in Music Literature and includes a study of folk song, art song, oratorio, opera, idealized dance forms, instrumental suite, sonata, symphony, and symphonic poem. Abundant use of musical illustration, directed listening, and music making acquaints the student with great masterpieces of music which should be the possession of every generally cultured person. This course is designed for the general student and aims to make intelligent and appreciative consumers of music. It is a non-technical course and attempts to make intelligent and appreciative radio-listeners and concert goers. Special attention is given to the relation of music to English literature and the social studies.

Music 427. Audio-Visual Aids in Music Education

This course deals with the selection, evaluation, coordination, and use of audio-visual aids in the teaching of school music. It includes record materials, radio programs, various types of sound equipment, kodachrome slides, the opaque projector, and films and film strips. This course provides four laboratory periods for demonstration and instruction in the use of equipment.

Credit: 2 semester-hours

Music 428. Music of Twelve Great Nations

This course aims to increase understanding among people through a study of the folk and related art music of twelve great nations. At a time of national tensions music crosses boundary lines and tends to unite peoples. Special attention is given to the social, economic, political, and cultural backgrounds of the music of these nations. Because of the social implications of this music this course is recommended particularly to teachers of the social studies. Musical illustrations are given at the piano, through group singing, and through recordings.

Credit: 2 semester-hours

Music 499A. Workshop in High School Music

This course deals with special phases of high school music. It is organized on the unit plan and includes music for boys, folk song dramatizations, integration of music with other subjects, music appreciation, visual aids, small vocal and instrumental ensembles, operettas, pageants, and festivals. Students are given opportunity to work out units in fields of special interest.

Prerequisite: Music 401

Credit: 2 semester-hours

Music 499B. Workshop in School Music

This course is designed primarily for music teachers-in-service who wish to work out projects for use in their respective schools. The content of this course is determined by needs in the field. It may include folk song dramatizations, small vocal and instrumental ensembles, the integration of music with other subjects in the curriculum, music for boys, visual aids in music pageants, festivals, and materials for special programs. This course provides the teacher with a number of units of work suitable for classroom use.

HEALTH EDUCATION 401. Methods and Materials in Health Education

This course prepares the teacher to assume the responsibility for organizing and conducting a program of health instruction. The coordination of health with other subject-matter fields and the evaluation of textbooks and audio-visual materials are given special consideration.

Credit: 2 semester-hours

HEALTH EDUCATION 407. Prevention and Care of Athletic Injuries

This is a lecture and laboratory course designed to acquaint the student with ways to prevent and to care for the common injuries sustained in athletics.

Credit: 2 semester-hours

Health Education 408. Driver Education and Training
Part I

This part consists of a minimum of 20 hours of class recitations and discussions for which home reading and study have been assigned. The following topics are included: (1) history and development of driver education and training programs; (2) objectives of driver education; (3) local, state, and national traffic safety programs; (4) driver qualifications; (5) psycho-physical testing; (6) curriculum content of school courses in driver education and training; (7) construction, operation, and maintenance of automobiles; (8) traffic laws and driver licensing; (9) traffic engineering; (10) pedestrian education and protection; (11) equipment for teaching driver education; (12) liability, costs, and insurance; (13) planning driver education as a part of the daily program of the high school; (14) public relations; (15) records and reports; and (16) visual aids in teaching driver education.

Part II

This part consists of a minimum of 20 hours devoted to the following: (1) behind-the-wheel instruction; (2) demonstrations and student-teacher practice in the car; and (3) road tests in traffic. Home reading and study are required in preparation for these projects.

Prerequisite: License to drive a car

HEALTH EDUCATION 411. School Health Services

The student is familiarized with the health services available in the school. The part which the teacher plays in coordinating his activities with the school medical staff is emphasized.

Credit: 2 semester-hours

HEALTH EDUCATION 412. Home Hygiene and Care of the Sick

Principles, methods, and content for teaching home care of the sick and mother and baby care are presented in this course. All lessons are demonstrated. Teaching by students is an essential part of the course. Successful completion of the course qualifies the student as a Red Cross instructor in home care of the sick and mother and baby care for student groups, mothers' groups, and other community groups. Credit for this course may be applied as partial fulfillment for the requirements for the permanent certificate for school nurses. Nurses, teachers, and teachers-in-training may enroll for this course.

Credit: 2 semester-hours

Physical Education M and W405. Organization and Management of Athletics

The course deals with the organization and management of athletic programs in the secondary schools. Such items as educational values, insurance, leadership, safety, finances, and state and local controls are considered.

Credit: 2 semester-hours

PHYSICAL EDUCATION 407. Physiology of Exercise

The effects of big-muscle activities on the human organism are discussed. Topics such as muscular contraction, coordination, fatigue, and exhaustion are studied. Emphasis is placed upon the effects of speed, strength, and endurance exercises on various age and sex groups.

Credit: 2 semester-hours

Physical Education 409. Organization and Administration of Physical Education

The details of organizing the units of the physical education programs are discussed. Various topics, such as legislation, financing, curriculum construction, grading, excuses, plant facilities, supplies and equipment, and office management are considered.

PHYSICAL EDUCATION 410. Water Safety and First Aid

This course includes intensive instruction in swimming, diving, water sports, boating, canoeing, water safety, and first aid. Students can qualify for Red Cross certificates during this course.

Credit: 2 semester-hours

RECREATION 405. Practice and Problems in Recreation

Under supervision the student collects recreational and activity materials suited to his own particular needs. Visits are made to playgrounds, recreational centers, and the student is given an opportunity for practical experience in the planning and direction of recreational activities on the campus.

Colleges From Which Graduate Students Now Matriculated RECEIVED THEIR BACCALAUREATE DEGREE

A & T College, Greensboro, N. C. Alfred University Barnard College Bennett College Bloomfield College Bob Jones University Boston University Bowdoin College Brown University
Bucknell University
Catholic University
Cedar Crest College Colby College Colgate University

College of St. Elizabeth

College of the City of New York

Columbia College Cooper Union Cornell University

Dana College of the University of Newark

Dartmouth College Dickinson College Drew University

Duke University East Stroudsburg State Teachers

College Fordham University Franklin & Marshall College Georgetown University Georgian Court College Goucher College Grove City College Guilford College

Hampton Institute Holy Cross College Hope College Howard University

Hunter College Juniata College Lafayette College Limestone College

Mt. Holyoke College New Jersey College for Women New York University

Notre Dame University Oberlin College

Ohio Wesleyan University

Panzer College

Pennsylvania State College

Pomona College Pratt Institute

Rhode Island State College

Rider College

Russell Sage College Rutgers University St. John's University
St. Lawrence University
St. Peter's College
Seton Hall College

Springfield College State Teachers College at Jersey City State Teachers College at Mansfield

State Teachers College at Mansheld State Teachers College at Montclair State Teachers College at Newark State Teachers College at Paterson State Teachers College at Trenton Swarthmore College

Syracuse University
Teachers College, Columbia University
Temple University Tufts College Tusculum College University of Alabama University of Florida University of Florida
University of Georgia
University of Illinois
University of Maine
University of Michigan
University of Missouri
University of Oregon
University of Oregon
University of Pennsylvania
University of Wisconsin
University of University of Wisconsin

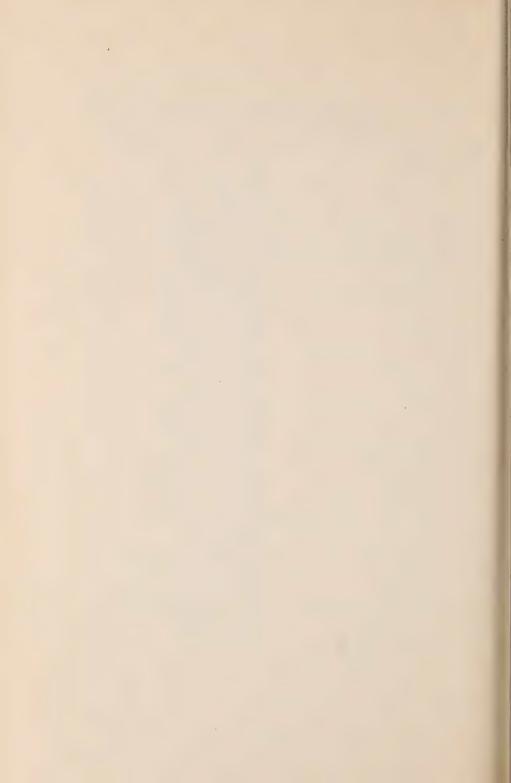
Upsala College Vassar College

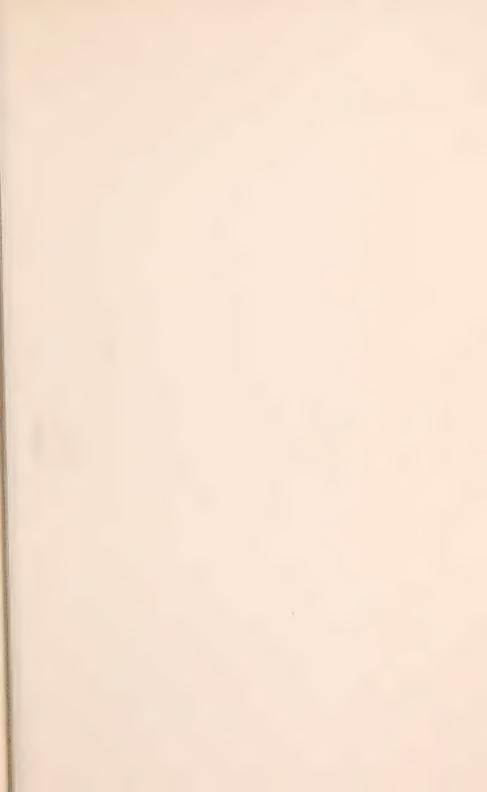
Washington & Lee University Washington State College

Wellesley College Wesleyan University, Connecticut Wheaton College

William and Mary College Woman's College of the University of North Carolina

Xavier University





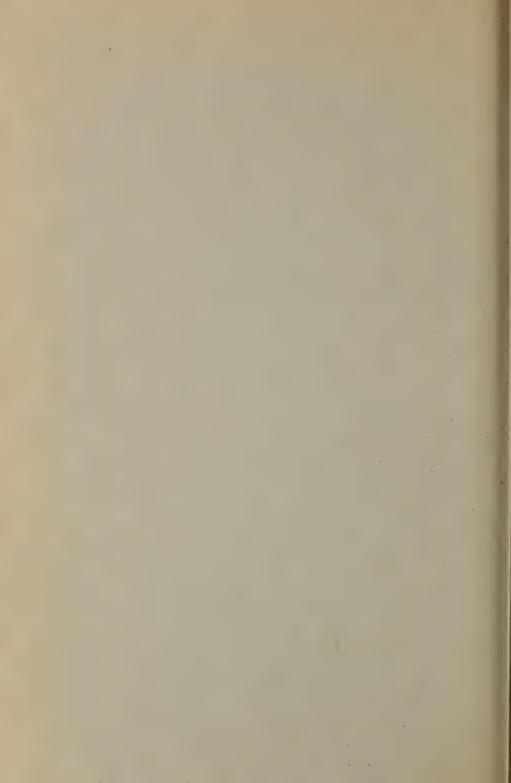


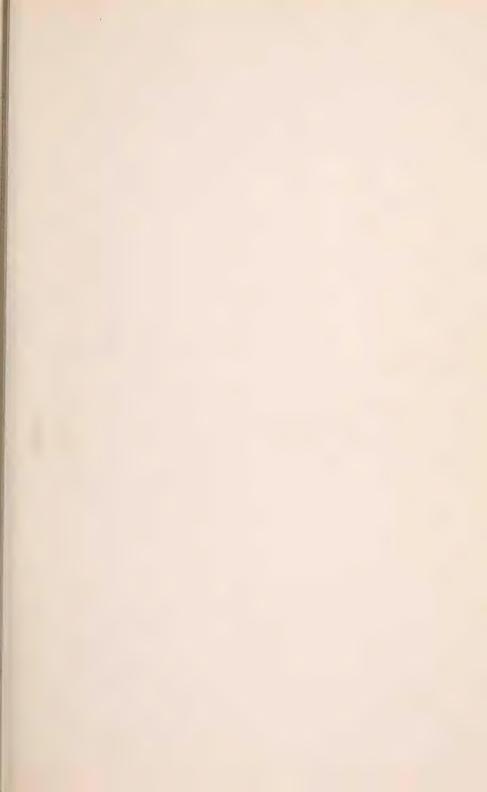


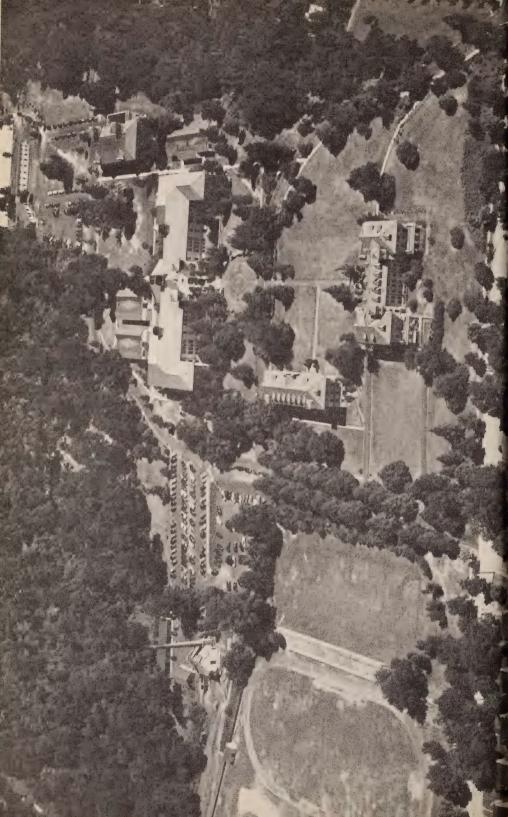


NEW JERSEY STATE TEACHERS COLLEGE AT MONTCLAIR

GRADUATE BULLETIN







BULLETIN

OF THE

New Jersey State Teachers College at Montclair

GRADUATE DIVISION

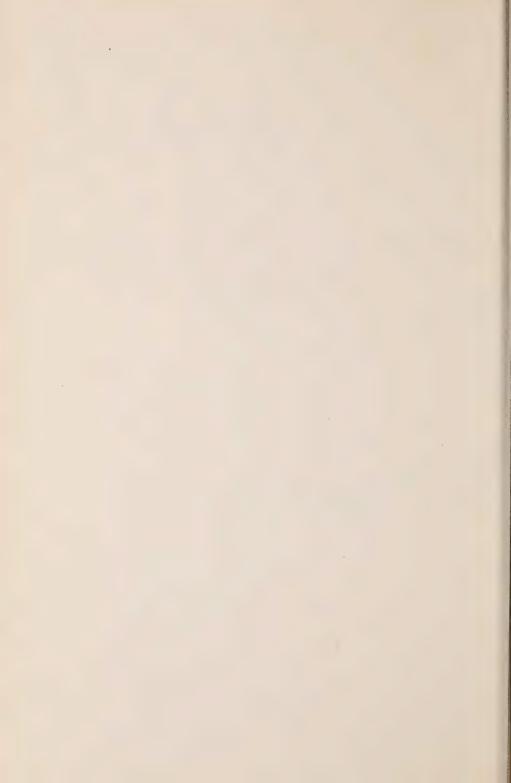
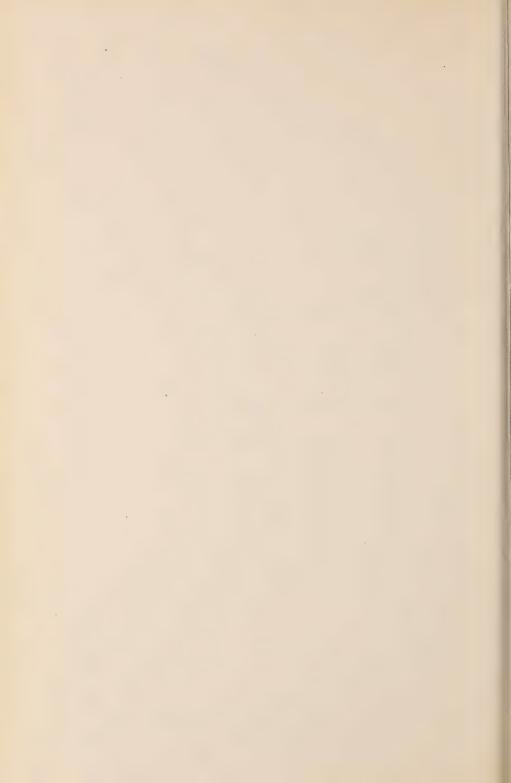


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Assistant Commissioner for Higher Education

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President Emeritus

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Administration

Graduate Division

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CLYDE M. HUBER	Instruction
HORACE J. SHEPPARD Head of Department of Business	Education
EDWIN S. FULCOMERHead of Department	of English
MOWAT G. FRASER Head of Department of	Integration
VIRGIL S. MALLORY Head of Department of M	Lathematics
RUFUS D. REED	
ELWYN C. GAGE Head of Department of Soc	cial Studies
OTIS C. INGEBRITSEN Chairman of the Graduate	
EARL C. DAVIS Director of Personnel an	
*MORRIS SEIBERT	
MARY M. HOUSEActing	
ELIZABETH S. FAVOR Assistant in Graduate	. Personnel

^{*}Leave of absence for military service.

GRADUATE FACULTY

E DEALTON DADTRIDGE DE D
E. DEALTON PARTRIDGE, Ph.D. President CLYDE M. HUBER, Ph.D. Dean of Instruction
CLYDE, M. HUBER, PH.D
EDWARD J. AMBRY, A.M Assistant Professor of Education KEITH W. ATKINSON, Ph.D Associate Professor of Education
KEITH W. ATKINSON, Ph.D Associate Professor of Education
WILLIAM A. BALLARE, A.MAssistant Professor of Speech
HAROLD C. BOHN, A.M
EDGAR C. BYE. A.M Associate Professor of Social Studies
FRANK L. CLAYTON, Ph.D Assistant Professor of Social Studies
PAUL C. CLIFFORD, A.M
LAWRENCE H. CONRAD, A.MAssociate Professor of English
DAVID R. DAVIS. Ph.D
EARL C. DAVIS, M.S Assistant Professor of Education
ERNEST B. FINCHER, Ph.D Assistant Professor of Social Studies
AVALINE FOLSOM, Ph.D Associate Professor of Social Studies
L. HOWARD FOX, A.M
MOWAT G. FRASER, Ph.D Professor of Education
PAUL E. FROEHLICH, A.MAssistant Professor of Business Education
EDWIN S. FULCOMER, Ed.D. Professor of English
ELWYN C. GAGE, Ph.D Professor of Social Studies
CHARLES E. HADLEY, Ph.D
WILLIAM PAUL HAMILTON, A.MAssociate Professor of English
T. ROLAND HUMPHREYS, A.MAssistant Professor of Mathematics
OTIC C INCERDITEEN BUD Professor of Psychology
OTIS C. INGEBRITSEN, Ph.D
ORPHA MAUST LOUGH LUTZ, Ph.D.
Assistant Professor of Psychology
VIRGIL S. MALLORY, Ph.D. Assistant Professor of Psychology VIRGIL S. MALLORY, Ph.D. Professor of Mathematics
EDNA E. McEACHERN, Ph.D
ROBERT W. McLACHLAN, Ph.DAssociate Professor of Science
ROBERT W. MCLACILAN, FH.DASSOCIATE FIOTESSOF OF SCIENCE
HARLEY P. MILSTEAD, Ph.D
MAURICE P. MOFFATT, Ph.D Assistant Professor of Social Studies
ALLAN MOREHEAD, A.M
JAMES P. PETTEGROVE, A.MAssistant Professor of English
WILLIAM R. PHIPPS, Ed.D Assistant Professor of Education
GEORGE F. PLACEK, A.M
ETHEL JANE RAMSDEN, A.M Assistant Professor of Biology
RUFUS D. REED, Ph.D
JOHN J. RELLAHAN, Ph.D
*HENRY E. SCHMIDT, A.M Assistant Professor of Physical Education
HORACE JONES SHEPPARD, A.M.
Assistant Desfersor of Pusings Education

Assistant Professor of Business Education MARGARET A. SHERWIN, A.M. Assistant Professor of Education KENNETH ORVILLE SMITH, Ph.D. Associate Professor of Science W. SCOTT SMITH, Ph.D. Professor of Education D. HENRYETTA SPERLE, Ph.D. Professor of Education ELIZABETH T. VAN DERVEER, Ed.D.

Assistant Professor of Business Education RICHARD W. WILLING, A.M... Assistant Professor of Business Education

FREDERIC HAROLD YOUNG, PH.D.

Assistant Professor of English and Education

Graduate Committee

OTIS C. INGEBRITSEN, Chairman

DAVID R. DAVIS W. PAUL HAMILTON CLYDE M. HUBER RUFUS D. REED JOHN J. RELLAHAN HORACE JONES SHEPPARD D. HENRYETTA SPERLE ELIZABETH T. VAN DERVEER

^{*}Leave of absence for military service.

GENERAL INFORMATION

HISTORY

In 1908 the Montclair State Teachers College first began its teacher-education program as a two-year Normal School. In 1927, by act of the State Board of Education, it was changed to a State Teachers College with four-year curricula leading to a Bachelor of Arts degree and certification to teach in the secondary schools of the State. That the College might better serve teachers in service, extension courses were instituted in 1929 and summer sessions in 1930. The fact that hundreds of teachers in service registered in these programs annually shows the wisdom of the State Department in instituting them. The majority of these teachers held Bachelor's degrees, and they wished to continue their preparation and receive graduate credit for their work. They, therefore, requested that the College offer courses for graduate credit. To meet this demand, the Commissioner of Education recommended and the State Board of Education voted in June, 1932, that such work be offered and the College be empowered to grant the degree of Master of Arts. Graduate courses were first offered at the State Teachers College at Montclair in the summer of 1932 and have been offered in all regular and summer sessions since. There are now more than six hundred students matriculated in the Graduate Division.

LOCATION

The College is located on the northern edge of Upper Montclair about three miles from Montclair Center. The campus is on the boundary line between Essex and Passaic Counties. Valley Road, the main thoroughfare between Montclair and Paterson, bounds the campus on the east; to the west is the ridge of Watchung Mountain; to the north are Great Notch and Paterson; to the south, Montclair, Newark, and the Oranges.

The College may be reached by the Lackawanna Railroad to Montclair, thence by bus to the campus; by the Eric Railroad to Montclair Heights Station; and by bus from most of the cities in Northeastern New Jersey.

LIBRARY

Conveniently located on the main floor of College Hall is the library of 61,000 volumes with a spacious reading and reference room and two smaller reading rooms housing the music collections and the curriculum laboratory and textbook exhibit. Special collections include the Howe collection of organ music; the Mark Andrews music

library: the Webster Memorial collection of modern poetry, including many first editions and autographed copies: the Finley collection of science textbooks, which has been augmented by early textbooks of historical significance from other sources; the Carnegie Secondary Art set of books and pictures; a collection of New Jersevana; and a recent outstanding gift, the Roy W. Hatch collection of Lincolniana. Of special interest is the China Institute Library, a permanent loan from the China Institute of New Jersey. The textbook collection of 4.800 volumes includes the most recent textbooks in all subjects on both the elementary and secondary level and curricula from the majority of communities and counties of New Jersey as well as outstanding curricula from other states. The library also maintains a complete file of bulletins of the U.S. Office of Education for which this library is designated as an official depository library in the area. An up-to-date and widely-used file of pamphlets, maps, and pictures, classified by subject, is available to all students.

All of the books, including the reference collection, are on open shelves to which the students, as well as faculty, graduates, and teachers-in-service, have access and borrowing privileges. This openshelf policy applies even to the periodical collection which consists of back issues of all but the most ephemeral of over 300 currently received periodicals. Bound volumes of magazines total over 2,200.

Supplementing the College library is the library of the College High School which is a large, pleasant room housing 3,800 volumes and located in the College High School. These books are catalogued at the College library and are available through the main catalog as well as through the catalog of the College High School. The High School Librarian works in close cooperation with the four members of the College library staff, particularly in the field of literature for adolescents, in which an extensive and up-to-date collection is maintained.

LIVING ACCOMMODATIONS

During the College year graduate students are accommodated in the dormitories whenever possible. The rate for the Summer Sessions is \$14.50 a week including room, breakfast and dinner. These charges are subject to revision.

Administration

The graduate program of the College is administered with the assistance of two college committees: the Graduate Committee appointed by the President of the College, and the Administrative Council which consists of the President, the Dean of Instruction, the Director of Admissions, the Chairman of the Graduate Committee, the Director of Personnel and Guidance, and the heads of the major departments.

PURPOSES

The New Jersey State Teachers College at Montclair is a professional school devoted primarily to the interests of secondary education. This objective is the controlling factor in the development of the curricula, teaching procedures, extra-curricular activities, and college spirit, and tends to unify all the activities of the college—professional, cultural, and social.

Graduate courses are organized to serve the purposes of two groups of students:

Those who wish to matriculate for the degree of Master of Arts: Graduates of accredited liberal arts and professional colleges. Secondary teachers, supervisors, principals, and other school administrators, who are graduates of approved colleges.

Those who do not wish to matriculate for the degree:

Students who hold graduate degrees but who wish to continue their professional preparation.

College graduates who wish to take courses leading toward secondary school certification.

Students who are matriculated for advanced degrees in other colleges and universities and who plan to transfer their credits.

Special students taking courses for cultural purposes without reference to credit.

ORGANIZATION

The work is organized to meet the needs of those who wish to do full-time work and of those who are teaching and who wish to take courses in the late afternoon, evening, or on Saturday morning. The courses in the Part-Time and Extension Division and Summer Sessions are given by members of the college staff and are granted resident credit. It is thus possible for a teacher in service to earn the Master's degree without taking a leave of absence from his teaching position.

To meet the needs of those candidates lacking secondary certification, some of the professional courses required for certification in the State of New Jersey may be taken on the graduate level. Students holding Bachelors' degrees from other colleges are permitted to matriculate for the Master's degree here prior to obtaining certification; but by the time the degree is to be conferred, they must have qualified for a teaching certificate. In all major departments except that of the Department of Integration this must be a secondary teaching certificate. Students who are working for certification should write to the Secretary of the State Board of Examiners, 175 West State Street, Trenton, New Jersey, submitting a transcript of all their previous college work and ask for an evaluation as to what they are lacking for certification.

Graduate students who must meet certification requirements as well as the requirements for the Master's degree will find it necessary to spend additional time on the campus and in student teaching. Supervised student teaching required for certification, does not carry graduate credit.

STUDENT TEACHING

Graduates of other colleges who wish to do their student teaching through the New Jersey State Teachers College at Montclair should obtain from the Integration Office the mimeographed statement outlining the conditions under which it can be done.

Admission and Matriculation

The applicant for admission must be a graduate of an accredited college or university and must present evidence of his qualifications for advanced study as shown by a high scholastic record, training, and experience. Note that matriculation for the Master's degree must be completed before the candidate has acquired more than eight semester-hours of graduate credit.

Steps in the matriculation process are as follows:

- 1. The candidate secures from the Graduate Office an application which must be completed and returned to that office.
- 2. The candidate will have his college send official transcripts of all undergraduate credits (if the applicant is not a graduate of Montclair), to the Chairman of the Graduate Committee. Official transcripts should be on file in the Graduate Office before the time of registration for graduate courses.
- 3. After the application and transcripts have been received and reviewed in the Graduate Office, the candidate will be invited to confer with the Chairman of the Graduate Committee.
- 4. The candidate will next confer with the graduate adviser in the department in which he expects to do his work, and the adviser will develop a program of courses with him.
- 5. The candidate will then have a final brief conference with the Chairman of the Graduate Committee. Following this, the candidate will be advised in writing of the decision of the Graduate Committee and will be furnished with a statement of the work to be completed.

Final action on all applicants is vested in the Administrative Council.

Announcements are made with the offerings of courses each semester as to when the departmental advisers and the Chairman of the Graduate Committee may be consulted.

ADVANCED CREDITS

For graduates of institutions other than the New Jersey State Teachers Colleges, a minimum of thirty-two semester-hours of residence work is required. In the case of graduates of the New Jersey State Teachers Colleges a maximum of eight semester-hours of graduate work from other accredited institutions may be offered toward the Master's degree.

Students who are eligible to transfer from other institutions graduate credits earned prior to matriculation must submit official transcripts of these credits for consideration by the Graduate Committee.

Candidates eligible to take work at other graduate schools and who desire to do so after matriculation must first secure written permission from the head of the department concerned at Montelair and from the Chairman of the Graduate Committee, if the credits so gained are to be applied toward the Master's degree.

Not more than eight semester-hours of graduate credit will be granted for work taken at Montelair prior to matriculation. For this reason, candidates should apply for matriculation before the completion of that amount of work.

STUDENT LOAD

Graduate work should involve careful and intensive study with ample time to explore areas which may warrant further study.

Twelve to sixteen hours of work per semester is considered a fulltime program for the graduate student in residence.

For teachers employed full time, six semester-hours of work in any one semester shall be the maximum load with four semester-hours being recommended.

In the regular six-week summer session, the maximum load shall be eight semester-hours. The Graduate Committee strongly recommends that the student consider six semester-hours of work a full program.

REQUIREMENTS FOR A.M. DEGREE

Thirty-two semester-hours of graduate credit are required for the Master of Arts degree.

Each student selects a major field in which he must complete such courses as are prescribed.

Each department except that of Integration requires at least thirty semester-hours of credit in its field as a prerequisite to matriculation

After matriculation, the Integration Department requires twenty-four semester-hours in its field; all other departments require a minimum of eighteen semester-hours.

For graduates of teachers colleges, at least six semester-hours of the required total must be taken in the Department of Integration. The amount of such work required of graduates of other colleges is determined by the number of courses needed for certification. Integration 503 is required of all students matriculated in the Graduate Division.

Four of the total credits may be satisfied by a thesis which meets the approval of the Graduate Committee.

A candidate who is matriculated for the A. M. degree after September 1, 1952, must attend as a full-time graduate student one summer session or one regular semester.

Comprehensive Examinations

A comprehensive departmental examination is required in all departments. This examination may be both written and oral. The examination is given by the department in which the student does his major work. No academic credit is given for the examination.

In some departments the thesis may be offered in place of the written comprehensive examination. Usually the oral examination is required in case a thesis or research problem is presented in lieu of the written examination.

An average of "B" or better is required for work submitted for the Master's degree. No credit is given for work below "C."

Certification to teach in New Jersey is a prerequisite to the conferment of the Master's degree at the Montclair State Teachers College. Those matriculated in subject matter areas must be certified to teach the major subject in secondary school. Students matriculated in the Integration Department need either elementary or secondary certification.

Students who desire to meet the State requirement in Supervised Student Teaching must register for that experience with the Assistant in Graduate Personnel.

Work for the degree must be completed within five years of the date of matriculation. Candidates must file with the Registrar an application for conferment of the degree before November 30 of the college year in which the work is to be completed. Application blanks for this purpose may be secured from the Registrar. The burden of responsibility for the request rests with the candidate. This is of special significance to the teacher in service who may have distributed the graduate work over four or five years.

GENERAL RESTRICTIONS

No credit is granted for:

- 1. Correspondence work.
- 2. Junior-college courses.
- 3. Graduate courses with mark below "C."
- 4. Supervised teaching.
- More than eight semester-hours of graduate credit prior to matriculation.
- 6. The comprehensive departmental examination.
- 7. More than six semester-hours of graduate credit earned in extension (off-campus) courses.
- 8. Graduate work taken elsewhere unless the student is a graduate of one of the New Jersey State Teachers Colleges, and in such cases not more than eight points.

FEES AND SERVICE CHARGES

Eleven dollars (\$11.00) per semester-hour to residents of New Jersey.

Thirteen dollars (\$13.00) per semester-hour to non-residents of the State of New Jersey.

Service charge, fifty cents (\$.50) per semester-hour.

Supervised Student Teaching (if required), sixty-six dollars (\$66.00).

Dormitory fees including room, breakfast, and dinner for a summer session, fourteen and one-half dollars (\$14.50) a week.

These charges are subject to revision.

All charges are payable during the registration period.

THE MASTER'S THESIS AND RESEARCH

The writing of a Master's thesis is optional. The election to write a thesis should be considered in terms of the subject matter, the opportunities to carry out the research project on a standard acceptable for a thesis, and the needs of the individual in relation to his plan of graduate study.

Some departments have in effect the equivalent of a thesis requirement except for the formal filing of the complete typed thesis following standard style.

Students in the Social Studies Department complete either a Master's thesis or a Master's essay on a problem which each individual chooses for specialization. The student is then given an oral examination on the paper before a seminar of members of the Social Studies Department.

An extensive term paper resulting from an individual research project is completed by every student in the course, Integration 603, *Principles and Practices of Research*. Students who plan to write a thesis are encouraged to take this course prior to the work for the thesis.

Other departments have research courses which follow the basic course, Integration 503, Methods and Instruments of Research, and which are designed to give the student a good foundation for thesis work. These special departmental provisions are outlined in each departmental statement of requirements.

Students writing a thesis must register with the Chairman of the Graduate Committee for the course, Graduate 500, Master's Thesis, for four semester-hours.

The following information is of aid to students submitting Master's theses:

- a. Choice of Topic and Plan of Research.

 The topic and plan of research will be worked out in consultation with the head of the student's major department. A sponsor will be appointed by the head of the department.
- b. Presentation of Plan.

 The plan for the thesis and its research must meet the approval of the sponsor, the head of the department concerned, the Graduate Committee, and the Dean of Instruction.
- Mechanics of the Thesis.
 Each thesis student should be guided by the "Style Sheet for Theses" which may be obtained in the Graduate Office.
- d. Submitting the Thesis.

 A typewritten copy of the thesis must be submitted to the sponsor who, if he approves of it, will submit the thesis to a reading committee. This should be done not later than six weeks prior to the date of graduation. Any changes recommended by the reading committee must be made by the candidate. Three typewritten copies of the thesis, as finally approved, must be presented by the candidate to the head of his major department at least two weeks before the date of graduation. Final acceptance rests with the Administrative Council.

e. An acceptable thesis shall show evidence that:

- 1. The candidate has comprehended the essentials of his problem, followed a well-organized plan of work, and offered satisfactory solutions.
- 2. The candidate has made an independent and intensive study of his problem.
- 3. The candidate has made a comprehensive study of the literature of his subject.
- 4. The candidate's conclusions are justified by his findings.
- The candidate has a practical working knowledge of research methods.
- 6. The thesis is not a duplicate of a similar study.
- 7. The data involves a sufficient fund of information to make the findings significant.
- 8. The thesis is of definite value to the teaching profession.

FIELDS OF WORK

Majors in graduate work are offered in the fields of Administration and Supervision, Biology, Business Education, English. Mathematics, Personnel and Guidance, Physical Science, Science, and Social Studies. In each curriculum there is a core of educational courses and major subject-matter courses. The amount of each type depends on the candidate's undergraduate work and is determined by the student's graduate committee. The work in Administration and Supervision and in Personnel and Guidance is limited largely to professional courses in order to meet the State certification requirements.

Students choosing a major field of study at the graduate level should keep in mind that certain experience requirements are needed in the fields of Administration and Supervision and Personnel and Guidance. Enrollment in certain Integration courses is limited to those who are having or who have had actual teaching experience. For details see page 42.

DEPARTMENT OF BUSINESS EDUCATION

The graduate work in the Department of Business Education is designed to prepare teachers of business education for administrative, supervisory, specialized work or master teaching in the field of business education. In order to attain these objectives the candidate has an opportunity to supplement his undergraduate program and to explore advanced areas of work, this work to be determined in accordance with the individual background, experience, and achievement of the candidate.

Graduate work toward the Master of Arts degree in Business Education presupposes the completion of an undergraduate major in business education, or its equivalent. The undergraduate major is based on the requirements as established by the New Jersey State Board of Education. For further details see the undergraduate bulletin.

In lieu of four of the thirty-two semester-hours of credit required for the Master of Arts degree, the candidate may write a thesis giving the results of some study in the field of business education or its teaching. This study may be made only after consultation with the Head of the Business Education Department. The study is completed under the sponsorship of a member of the Business Education Department faculty. Plans should be made to have such a study in its final form and approved by the Department of Business Education by May 1st of the year in which the degree is expected to be conferred. The thesis may be substituted only for courses listed under Division III as described under the course requirements.

All candidates for the Master of Arts degree in Business Education must pass a comprehensive examination before they are granted the degree. This examination is given the first Saturday in April and the last Saturday in July for those candidates anticipating graduation. It is general in nature and is intended to test the candidate's maturity of thought with respect to business education and the teaching of business education.

COURSE REQUIREMENTS

The basic plan of the program is made up of four divisions with graduate courses bearing 500 or 600 numbers and senior-graduate courses bearing 400 numbers.

Division I. Required Professionalized Business Education Courses (6 sem. hrs.)

B. E. 502. Principles and Problems of Business Education

B. E. 503. Administration and Supervision of Business Education 2 s. h. 2 s.h.

B. E. 504. Improvement of Instruction in Business Education

Division II. Required Seminar in Economics (6 sem. hrs.)

B. E. 602. Seminar in Economics 6 s.h.

Division III. Elective Subject Matter Courses (14 sem. hrs.)

These may be selected from those courses listed below:

Group A—Business Education Department Courses (8 to 14 s. h.)

B. E. 401, 402, 404, 405, 406, 407A, 407B, 408, 409, 410A, 410B, 411, 412, 413, 414, 415, 416, 420

B. E. 511, 512, 513, 514A, 514B, 515A, 515B, 516, 517A, 517B, 518, 519A, 519B

Group B-Geography, Mathematics, and Social Studies Department Courses (up to 6 s. h.)

> Other courses may be substituted for those in this group with the permission of the Head of the Business Education Department. Such substitution will be permitted only if it contributes to what may be considered the basic training requirements of a business education teacher

409, 410, 413, 414A, 414B, 419, 503, 504, 509 Geog.

Math. 410, 505

Soc. St. 413, 441, 446, 450A, 450B, 454, 455, 456, 492A, 492B, 517, 522, 523, 524

Division IV. Integration Department Courses (6 sem. hrs.)

Group A—(2 sem. hrs. required)

2 s.h. Methods and Instruments of Research

Group B—(4 sem. hrs. of elective credits—Select two courses) Int. 407A, 407B, 408, 409, 500A, 500B, 500C, 504A, 505, 521A, 521B, 534,

535, 536, 537, 538, 551, 553

For information relative to eligibility for enrollment in Integration courses, see regulations outlined on page 42.

THE GRADUATE COURSES

Business Education 502. Principles and Problems of Business Education

The purpose of this course is to survey the basic principles and practices of business education. Among the topics considered are: the high school business program, developing courses of study, factors in curriculum construction, attitudes of management and labor toward education, and the relationship of general education to business education.

Credit: 2 semester-hours

Business Education 503. Administration and Supervision of Business Education

This course offers an opportunity to study the problems of organizing, directing, and supervising business education programs. Such matters as the functions of the administrator and supervisor of business education, textbook selection, teacher selection, testing programs, conferences, and equipment and layout are considered.

Credit: 2 semester-hours

Business Education 504. Improvement of Instruction in Business Education

This course seeks to bring together business education teachers regardless of subject matter fields to consider common problems involving general subject matter and methods of instruction including visual and auditory aids. It also offers opportunity for an individual to investigate and evaluate materials and methods in specific subject matter areas.

Credit: 2 semester-hours

BUSINESS EDUCATION 511. Auditing

This course seeks to develop the meaning and techniques of auditing procedure. It includes practice in the fundamental mechanics of auditing as well as in the making of the formal report on an audit.

Prerequisite: 8 semester-hours of accounting

Business Education 512. Tax Accounting

The primary purpose of this course is to give a comprehensive picture of the Federal Tax structure, and to provide training in the application of basic principles to specific problems of the individual and corporation.

Prerequisite: 6 semester-hours of accounting

Credit: 2 semester-hours

Business Education 513. Labor Problems

This course provides an opportunity to study Federal and State Labor Laws and regulations. It also includes consideration of such matters as arbitration, collective bargaining, labor organizations, the labor contract, personnel management, and case problems.

Credit: 2 semester-hours

Business Education 514A. Marketing Processes I

The emphasis in this course centers about the application of the basic principles of marketing to specific case problems involving market institutions (brokers, auctions, exchanges, wholesalers, retailers, chains, cooperatives, and mail-order houses). Commodity marketing of farm products, industrial goods, and service industries are studied.

Credit: 2 semester-hours

Business Education 514B. Marketing Processes II

This course is a continuation of 514A, but course 514A is not a prerequisite. Some of the topics are: margins and expenses, turnover, market research, marketing policies, finance and credit policies, government regulations and competition. The case-problem approach is used predominantly.

Credit: 2 semester-hours

BUSINESS EDUCATION 515A. Textiles I

This course is important for its consumer and technical values. It develops selling points for textiles by furnishing a great deal of product information. Each student learns to classify and recognize various fabrics and their weaves.

Credit: 2 semester-hours

Business Education 515B. Textiles II

This course is a continuation of 515A, but course 515A is not a prerequisite. Emphasis is placed on the selection of appropriate fabrics for various types of clothing and for home furnishings including rugs.

Business Education 516. Business Organization and Management II

The problem approach is used in this advanced course in considering such topics as ownership, finances, location and layouts, purchasing personnel, and managerial controls.

Credit: 2 semester-hours

BUSINESS EDUCATION 517A. Advanced Business Law Cases I

This course presupposes a knowledge of the basic principles of business law. It is designed to furnish a broader understanding and background in areas requiring considerable training to be effective in the classroom. Cases are concerned with the topics of contracts, negotiable instruments, and insurance.

Credit: 2 semester-hours

BUSINESS EDUCATION 517B. Advanced Business Law Cases II

This advanced law course is a continuation of B. E. 517A, but course 517A is not a prerequisite. A basic knowledge of the principles of law is, however, required. The course includes a further study of law cases pertaining to bailments, carriers, sales, property, landlord and tenant, torts, and business crimes.

Credit: 2 semester-hours

Business Education 518. Advertising II

This advanced course in advertising offers an opportunity to study in some detail the uses of various advertising media such as newspapers, magazines, radio, television, and direct mail, and to evaluate their effectiveness in terms of campaigns.

Credit: 2 semester-hours

Business Education 519A. Advanced Accounting I

The content of this course emphasizes an intensive study of the items making up accounting statements and the principles of valuation and income determination. Problem solving is an integral part of the course. At least eight semester-hours of accounting are required as a prerequisite.

Credit: 2 semester-hours

Business Education 519B. Advanced Accounting II

This course is a continuation of B. E. 519A, but course 519A is not a prerequisite. Topics treated include consignments, agency and branch accounting, consolidations, receivership accounting, estate and trust accounting. At least eight semester-hours of accounting are required as a prerequisite.

Business Education 602. Seminar in Economics

This seminar is designed to meet the individual needs of the graduate student in business education or social studies by allowing him to pursue areas of work along economic lines in which he is not well versed. The program of participation consists of oral and written reports, developed through independent reading and individually directed field studies. In addition, group field trips are planned so as to give the student a first-hand knowledge of methods and practices of such organizations as banks, organized exchanges, manufacturing and marketing businesses. It is expected that the reports arising from these experiences will be in such form that they will be capable of being published or delivered as speeches before groups of people. An opportunity is given to view, evaluate, and work with, a variety of related visual and auditory aids.

Credit: 6 semester-hours

SENIOR-GRADUATE COURSES

For more complete descriptions of these courses see the undergraduate catalog.

Business Education 401. The Teaching of Business Education

In this course a study is made of the history and development of business education, aims or objectives, human learning processes, lesson plans, teaching procedures, tests and measurements, and special helps for the teachers of business education.

Credit: 3 semester-hours

Business Education 402. Salesmanship

The principles of salesmanship in all types of selling activities are discussed. They are amplified and strengthened by individual selling demonstrations which require intensive study of the product to be sold in the demonstration and careful analysis of the desirable techniques for its sale. Visual aids and talks by salesmen, sales managers, and retail training directors add interest and purposefulness to the course.

Credit: 3 semester-hours

Business Education 404. Business Economics

This course deals with the business aspects of economics as related to contemporary and long range problems; operation and government control of public utilities; taxation, government finance, and labor and management problems.

BUSINESS EDUCATION 405. Marketing

Marketing is the process of transferring goods from the producer to the consumer. The functions involved in this process, the various channels of distribution, marketing institutions, and the costs of marketing are considered in this course.

Credit: 2 semester-hours

Business Education 406. Advertising I

This course aims to acquaint the student with the social and economic aspects of advertising so that a fair evaluation may be made of its worth as well as its undesirable aspects. Copy appeals, the writing of copy, advertising layouts, and the selection of appropriate types of media for various advertisements are considered.

Credit: 2 semester-hours

Business Education 407A. Consumer Education I

This is a general introductory course designed to meet current needs for greater economic efficiency as outlined by the National Educational Policies Commission. The general objective of this course is to help improve the ability of individuals to choose and to buy economic goods and services so that standards of living may be raised. Some of the topics considered are: personal budgeting; the general art of buymanship; the cooperative movement; consumer standards and grade labels; weights and measures; governmental and producer aids for consumers; the wise buying of shelter, insurance, and investments; the intelligent use of installment buying and other forms of credit; and a general survey of the agencies for educating the consumer.

Credit: 2 semester-hours

Business Education 407B. Consumer Education II

This course is a continuation of Business Education 407A, but course 407A is not a prerequisite. The emphasis is on the economics of consumption with particular attention given to an analysis of the factors and forces back of consumer demand, such as custom, fashion, and advertising.

Credit: 2 semester-hours

Business Education 408. Business Finance

This course deals with the processes involved in the financing of business organizations from the time of their inception and promotion, during operation and expansion, and during the period of reorganization.

Business Education 409. Money and Banking

This course provides a short historical survey of money and the evolution of banking, outside and within the United States. The organization of banks, the nature of their transactions, operations, and relations with other banks are considered. The functioning of the Federal Reserve System and the nature of the money markets are also examined.

Credit: 2 semester-hours

Business Education 410A and 410B. Cost Accounting

The course deals with the basic principles of modern cost findings and cost keeping, and endeavors to give a practical application of these principles to present-day conditions.

Credit: 2 semester-hours each

Business Education 411. Retail Store Management

The work of the store manager in retail store operation is fully explored in this course. The problems of organization and management as they are encountered in various types of retail stores are discussed.

Credit: 2 semester-hours

Business Education 412. Transportation and Communication

The student in this course becomes acquainted with the various kinds of services rendered by transportation and communication agencies. He also receives some insight as to how to use these services most efficiently; the practices of the agencies; how and why they are controlled by the government.

Credit: 2 semester-hours

BUSINESS EDUCATION 413. Business Statistics

This course supplements courses in accounting and social business studies and includes a study of the fundamentals of statistics as they apply particularly to business data gathered from financial statements, sales records and personnel records. Laboratory techniques are used in developing the methods of presentation.

Credit: 2 semester-hours

Business Education 414. Merchandising I

This course analyzes the problems of how, what, where, and when to buy; the terms of purchasing; tested receiving and marketing procedures; the mathematics of merchandising—setting the retail price, planning mark-up and mark-down, and inventory controls. It is designed to assist the teacher of the prospective or actual small businessman.

Business Education 415. Public Finance

This course aims to furnish a practical background for the student with respect to the nature and scope of governmental finance. Some of the areas studied are: the bases of taxation, income and expenses of government, and fiscal administration, including governmental budgets.

Credit: 2 semester-hours

Business Education 416. Accounting Problems

This course supplements previous courses in developing a broad and thorough understanding of basic accounting theory as it is applied to business management today. The problem approach is used.

Prerequisites: Business Education 301 and 302

Credit: 2 semester-hours

BUSINESS EDUCATION 420. Field Studies in Business Education

This orientation course aims to introduce business education students, through direct observational techniques, to the realities of the business world. Six field trips are made in the New York Metropolitan Area which include visits to business organizations where the following types of business activity or relationships may be observed: production, merchandising and advertising, finance, transportation and communication, employer-employee relationships, government and business relationships. The field trips are supplemented by regular class sessions where discussions are held and visual aids presented to make the visits more meaningful.

DEPARTMENT OF ENGLISH

Graduate study in the Department of English is designed:

- 1. To increase the student's comprehension and appreciation of the literature of Great Britain and of the United States of America.
- 2. To introduce current materials and methods for improving instruction in English in the secondary school.
- 3. To show how language functions in individual expression and in social communication in the language arts; reading, writing, speaking, and listening.
- 4. To investigate recent experimentation and research in the teaching of English.

REQUIREMENTS IN THE ENGLISH DEPARTMENT

Graduate study leading to the Master's degree in English presupposes an undergraduate major in English of at least thirty semester-hours. Before matriculation, each candidate for the Master's degree secures from the Head of the Department an approved course outline requiring at least eighteen semester-hours in English at the senior-graduate level. Distribution of these courses is as follows:

- I. Required Work in Literature. Minimum requirements—12 semester-hours
 - A. American Literature. Minimum requirements—4 semester-hours.

These may be selected from the courses listed below: Eng. 406, 407, 413, 421, 438, 439, 442A, 442B, 443, 446, 450, 460, 525

B. British Literature. Minimum requirements—6 semester-hours

These may be selected from the courses listed below: Eng. 402 404, 405, 406, 407, 413, 420, 421, 422, 426, 431A, 431B, 443, 445, 446, 502, 503, 505, 506, 515, 518, 521

C. World Literature. Minimum requirement—2 semester-hours

This may be selected from the courses listed below: Eng. 427, 432, 441, 447, 451, 459, 513, 514, 520A, 520B, 524, 528, 530

- II. Required Work in Language Study. Minimum requirements—
 4 semester-hours
 - A. Language Study. Minimum requirement—4 semester hours These may be selected from the courses listed below: Eng. 408, 419, 507, 511, 512, 516
 - *B. Reading Courses

These courses are as follows:

Eng. 430, Eng. 455, Int. 430, Int. 530A, Int. 530B, Int. 532

*C. Speech Courses

These courses are as follows:

Eng. 410, 417, 435, 448, 449, 454, 456, 457, 458, 461A, 461B, 462, 463, 464, 466, 467, 522

*Note: Either a course in reading or a course in speech may be offered toward meeting two of the required four semester-hours in this area.

III. Required Work in the Teaching of English. Minimum requirement—2 semester-hours

This may be selected from the courses listed below: Eng. 401, 401X, 409, 517, 519

IV. Departmental Examination for which no academic credit may be given

All candidates for the Master's degree in English must pass a written comprehensive examination before the degree is awarded. Information concerning the examination may be secured from the Head of the Department.

The candidate may elect to write a thesis of professional value in the teaching of English in the secondary school. Four semester-hours of credit are granted for this thesis, but this credit cannot be considered part of the minimum eighteen semester-hours unless written permission is secured in advance from the Head of the Department.

GRADUATE COURSES

English 502. Victorian Poetry

The most important English poets who wrote during the transition from the Victorian to the modern period are read and discussed. An important feature of the course is the analysis and appreciative reading of the lyric poetry of Rossetti, Swinburne, Hardy, Bridges, G. M. Hopkins, Francis Thompson, A. E. Housman, Kipling, and W. B. Yeats.

ENGLISH 503. Geoffrey Chaucer and His Times

Some of the works of Chaucer are read rapidly, others studied intensively, so that the students may acquire a broad general understanding of Chaucer's place in the history of English literature as well as facility in reading and interpreting the medicial text of his stories.

Credit: 2 semester-hours

ENGLISH 505. Philosophy and English Poets

This course is designed to show the dependence of such English poets as Wordsworth, Coleridge, Shelley, Keats, Tennyson, and Browning upon the philosophical thinking of their day. The course aims to provide a philosophical background for the reading of teachers of modern literature and for the interpretation of much of the poetry which they teach in high school.

Credit: 2 semester-hours

ENGLISH 506. John Milton

This course has for its primary aim the understanding and evaluation of Milton's poetry. Contributory to this end are the following topics: the Puritan struggle for civil and religious liberty; the growth of science in the seventeenth century; the life, personality, and prose writings of Milton; his literary heritage and influence; comparison of Milton with the Cavalier Metaphysical poets.

Credit: 2 semester-hours

English 507. Critical Writing

This course evolves a body of critical principles for judging art and literature, and provides training in the writing of criticism, ranging from comments upon pupils' themes to a full and comprehensive essay upon the work of some outstanding author.

Credit: 2 semester-hours

ENGLISH 511. The History of Literary Criticism

The purpose of this course is to familiarize the student with the chief doctrines of the great critics from Aristotle to I. A. Richards and T. S. Eliot and to correlate these critical doctrines with the outstanding writings of each age. By such a study it is possible for the student to evaluate the historical interrelations of expert criticism and literary production. A basic text is used, but much of the information is gleaned from source materials.

English 512. The Growth and Structure of the English Language

This course is designed to help the high school teacher understand the structure of modern English, one of the most complicated of contemporary tongues. Through an analysis of the historical evolution of our language, the student discovers the reasons for many of the seemingly illogical and arbitrary characteristics of modern English spelling, grammar, and morphology.

Credit: 2 semester-hours

ENGLISH 513. The Renaissance

This course deals with Petrarch and the humanists; Boccaccio and the Novelle; the House of the Medici, Savonarola, the Popes; Machiavelli and The Prince; Cellini and the Autobiography; Castiglione and The Courtier; Boiardo, Pulci, Ariosto, and the romantic epic; the drama; the art of Da Vinci, Botticelli, Michelangelo, Raphael, Titian, and others; Rabelais and the Gargantua and Pantagruel; Cervantes and Don Quixote; Ronsard and the French Pleiade.

Credit: 2 semester-hours

English 514. Origin and Development of the Arthurian Legend

This course deals with the vague and tentative beginnings of the Arthur story in early chronicle and legend; with Geoffrey of Monmouth's pseudo-historical and Chretian de Troyes's romantic treatments; with the great medieval recapitulations of Gottfried von Strassburg, Wolfram von Eschenbach, and Sir Thomas Malory; with the Victorian retellings of Tennyson, Arnold, and Morris; with the musical adaptations of Wagner; and with the modern versions of E. A. Robinson. It includes a detailed history of the development of the legend in its divers forms.

Credit: 2 semester-hours

English 515. Robert Browning

Browning's characteristic shorter poems are recalled or studied in order to define his fundamental ideas as a writer. This is followed by a study of his longer poems and dramas: the "soul-studies", Pauline, Paracelsus and Sordello; the dramas, Strafford, Pippa Passes, A Blot in the 'Scutcheon, Colombe's Birthday, and In a Balcony; the translations, The Agamemnon of Aeschylus, and Balaustion's Adventure; and Browning's masterpiece, The Ring and the Book. These works are studied for their literary and philosophical values, as showing the development of Browning as man, poet, and philosopher, and as a reflection of certain phases of nineteenth-century life and thought.

Credit: 2 semester-hours

ENGLISH

English 516. Language Problems in the English Curriculum

This course reviews the several theories of language and studies the problem of meaning in order to arrive at a suitable technique for the interpretation of prose and verse. This technique is then applied to the problems of reading, of composition, of speech, and of appreciation of literature. The course has two aims: to increase the student's own skill in dealing with language, and to increase his effectiveness in teaching.

Credit: 2 semester-hours

English 517. Recent Research and Experiment in the Teaching of English

This course analyzes and evaluates current research in the fields of language, literature, and composition relevant to the teaching of English in the high school, and examines critically recent experimentation in methods of teaching English. The aim of the course is to make available to the student any recent knowledge and experience which may throw light on the problems of English teaching in secondary schools and to evaluate tendencies in this field. The course is conducted as a seminar.

Credit: 2 semester-hours

ENGLISH 518. The Major Romantic Poets

This course studies the work of Coleridge, Wordsworth, Scott, Byron, Shelley, and Keats. It devotes especial attention to the poems which are best adapted for the reading of high school students.

Credit: 2 semester-hours

ENGLISH 519. English in the Modern High School

This is a seminar in which the methods and materials requisite to the development of a program in the language arts (listening, speaking, reading, and writing) are considered.

Credit: 2 semester-hours

ENGLISH 520A and 520B. Great Books on Education

Students examine the classics dealing with educational theory and practice which they so often read about but rarely consult: Plato's Republic, Xenophon's Cyropaedia, Cicero's De Oratore, Castiglione's Courtier, Machiavelli's Prince, Rabelais's Abbey of Theleme, Ascham's Schoolmaster, Bacon's Novum Organum, Defoe's Projects. Milton's To Samuel Hartlit on Education, Rousseau's Émile, Byron's Don Juan, Hughes' Tom Brown's Schooldays, Newman's Idea of a University, the Arnold-Huxley debates, and the works of

John Dewey and Jacques Barzun. This course is recommended for graduate students in the Department of Integration.

Part A-Plato to Rousseau.

Part B-Rousseau to Dewey.

Credit: 2 semester-hours each

English 521. English Literature of Social Problems

This course surveys English literature as English 460 deals with American literature. The period from 1800 to 1914 is covered, and the principal authors discussed include Shelley, Dickens, Kingsley, Tennyson, Carlyle, Butler, Meredith, Galsworthy, Bennett, Shaw, and Wells. English 460 is not prerequisite to this course.

Credit: 2 semester-hours

ENGLISH 522. Advanced Phonetics

This course provides ear-training to develop skill in recognizing and distinguishing a-typical English speech sounds, regional differences in pronouncing American English, and foreign sounds heard in English speech. This is followed by extensive practice in transcribing speech sounds into International Phonetic Alphabet symbols and in reading International Phonetic Alphabet transcriptions. A thorough study of the speech characteristics of some geographical region with which the student is personally familiar is required of each student.

Credit: 2 semester-hours

ENGLISH 524. Five Great Books

The aim of this course is to broaden and to deepen the student's general cultural perspective by a study of five books which have profoundly influenced present civilization. The actual choice of texts is a cooperative class enterprise. Selections are made from such books as: The Bible, Homer's Odyssey, Plato's Republic, Shakespeare's Hamlet, Rousseau's Confessions, Goethe's Faust, Tolstoy's War and Peace, Dewey's The School and Society. This course is designed to provide leadership in local "Great Books" meetings.

Credit: 2 semester-hours

English 525. The Development of the American Novel

The American novel as a contemporary art form is examined in this course. Beginning with the novels of the early nineteenth century the course traces the rise and development of the Romantic and the Realistic novel and concludes with an example of American Naturalism. Written criticism of five novels is required.

English 528. New Perspectives in World Literature

The point of view of our own democratic culture is surveyed and established in an attempt to see how the literatures of Western Europe, the Middle East, and the Orient have influenced and are influencing modern thinking. Such perspectives are designed to provide adequacy in teaching a world point of view through literature.

Credit: 2 semester-hours

English 530. Dante and His Influence in England and America

Fully two-thirds of the time of this course is devoted to rereading and reassessment of Dante himself in English translation. When Dante's meaning has been revealed, his continued influence from Chaucer through Sackville, Spenser, and Milton to Rossetti, Longfellow, and T. S. Eliot becomes the subject of investigation.

Credit: 2 semester-hours

SENIOR-GRADUATE COURSES

For more complete descriptions of these courses see the undergraduate catalog.

English 401. The Teaching of English in Secondary Schools

Students are taught to develop and use materials of the classroom: lesson plans and units of work are prepared and presented for criticism, textbooks are analyzed for training in their use, and bulletin board exhibits and visual education materials are prepared by students for the class. Observation and criticism of teaching in the College High School, and criticism of student compositions are required.

Credit: 3 semester-hours

English 401X. The Teaching of English in Secondary Schools

Students are taught to develop and use materials of the classroom; lesson plans and units of work are prepared and presented for criticism; textbooks are analyzed for training in their use; and bulletin board exhibits and visual and auditory aids are prepared by students for the class.

Credit: 2 semester-hours

ENGLISH 402. Survey of British Literature to 1798

This course draws together into a systematic narrative the story of the development of English literature from the beginnings to the romantic triumph of 1798.

English 404. Survey of British Literature

This course is a continuation of English 402. It takes up the story with the romantic triumph in 1798 and continues it to the present time.

Credit: 2 semester-hours

ENGLISH 405. The Victorian Poets

The poetry of the Brownings, Tennyson, Arnold, Clough, Morris, the Rossettis, and Swinburne is presented as a reflection of the moral, religious, social, and political life of nineteenth-century England.

Credit: 2 semester-hours

English 406. The Modern Novel

Particular emphasis is given to British and American novels since 1870, and the important tendencies of present-day prose fiction are explored.

Credit: 2 semester-hours

English 407. British and American Biography

Both the old and new types of biography are read and studied in this course, with emphasis upon the nineteenth and twentieth centuries.

Credit: 2 semester-hours

English 408. Creative Writing

Students in this course attempt seriously the standard literary forms in prose and verse.

Credit: 2 semester-hours

English 409. The Teaching and Appreciation of Poetry

This course is both personal and professional. It develops the student's appreciation of poetry as an expression of life and as a form of art, and it considers in detail the aims and methods of teaching poetry.

Credit: 2 semester-hours

English 410. Speech Pathology

This course deals with diagnostic and corrective procedures, causes and treatment for major or pathological speech problems including severe stuttering, voice disorders, laryngectomy, cleft-palate, cerebral palsy, and aphasia. This course is required to teach speech and speech defectives.

Prerequisites: English 208 and 209

ENGLISH 413. Modern Poetry

This course deals with the work of contemporary poets, both British and American.

Credit: 2 semester-hours

English 414. Public Relations and School Publicity

This course considers such problems as the development of a student publicity staff, preparation of copy for professional newspapers, publicity for school news, and the development of better school-community relations. A study is made of other publicity media, including radio, visual aids, the platform, displays and exhibits, special events, sports promotion and fund-raising. A background of elementary journalism is helpful in this course.

Credit: 2 semester-hours

English 417. Methods in the Teaching of Speech

In this course a study is made of the objectives of speech education at each grade level; of the problems, approaches, materials, textbooks, and techniques in specific speech areas; of modern trends in instruction; and of the integration of speech with other academic departments of study. This course is required to teach speech.

Credit: 3 semester-hours

English 419. Grammar for Teachers

This course is a study of the basic facts of grammatical relationships in English, and of the current problems of "rules" as opposed to "usage." The primary aim of the course is to acquaint students with the true function of grammar in speech and writing.

Credit: 2 semester-hours

English 420. High School Classics

This course is a seminar for prospective student teachers on the problem of teaching literature in high schools. The student reads numerous articles on the "classics" vs. the "moderns" controversy, becomes thoroughly acquainted with the contents and aims of the best high school anthologies currently in use, and builds up a working philosophy for his own teaching. Through the continued practice of reporting and discussion leading, the student is enabled to integrate his total experience in college.

ENGLISH 421. The Short Story

This course traces the history of the short story as an evolving literary form, emphasizing the productions of the nineteenth and twentieth centuries

Credit: 2 semester-hours

English 422. Seventeenth Century Literature

This course aims to give students an appreciation of the prose style and intellectual content of the best thinkers and writers of the first "modern" century—Bacon, Burton, Walton, Bunyan, Hobbes, Pepys, Dryden; and of the poetic art of Donne and the "Metaphysicals"—Jonson, Herrick, and the "Cavaliers"—Herbert, Cowley, Vaughan, Dryden, and others.

Credit: 2 semester-hours

English 426. The Victorian Novel

This is an intensive unit of work on the novel in Victorian England. Novels studied in the high school are treated professionally in class.

Credit: 2 semester-hours

English 427. Theatre and Society

Dramatic expression from the time of the ancient Greeks to the present is studied carefully to analyze social, political, and ethical trends as they are reflected in the drama.

Credit: 2 semester-hours

English 430. Reading in Secondary Schools

After examination of recent research concerning reading activities at various age levels, the class examines and evaluates methods devised to develop reading skills, to increase vocabularies, and to improve the comprehension of secondary school students.

Credit: 2 semester-hours

ENGLISH 431A and 431B. Shakespeare

This course, in two parts, presents all of Shakespeare's plays as opposed to those taught only in high school, which is the chief concern of English 301B. Here the poet's full development can be seen, providing a complete critical experience. Critical analysis, contentual evaluation, and textual problems are the main areas of concern. Part A deals with tragedies; Part B, the comedies. The chronicle plays are woven into the discussion.

ENGLISH 432. The Development of the Drama

The development of the drama is studied in all periods from ancient Greece and Rome through the Middle Ages and the Renaissance to the beginning of modern drama with Ibsen. The emphasis of the course is placed on the major characteristics of the drama and its necessary complement, the theatre. Representative plays are read and discussed.

Credit: 2 semester-hours

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English 435. Stagecraft

This workshop course provides training in construction and painting of scenery and lighting the stage. A minimum of twelve clock hours of craft work upon a production of the College or College High School is required for credit in this course.

Credit: 2 semester-hours

ENGLISH 438. Masters of American Literature

Significant American writers, including Irving, Hawthorne, Poe, Emerson, Melville, Whitman, and Mark Twain, are studied to discover their contributions to American life and to reveal important forces in our national background.

Credit: 2 semester-hours

ENGLISH 439. Contemporary American Literature

This course studies the major authors and literary movements in America during the contemporary period. Beginning where the course in *Masters of American Literature* normally ends, it is designed to complete a unit in this subject.

Credit: 2 semester-hours

ENGLISH 441. Medieval Epic, Saga, and Romance

This course deals with the chief medieval epics, sagas, and romances from the literatures of England, France, Germany, Ireland, Iceland, Wales, and Italy in modern English translation.

Credit: 2 semester-hours

ENGLISH 442A and 442B. American Literature

This chronological survey reflects the interplay of life and letters in the American scene, examining the political, social, and ethical motivations of the great movements in literature, and reading the separate works in the light of the influences that brought them into being. Part A commences with the Puritan Tradition and ends just as the Civil War is beginning. Part B traces, in life and in literature, the growth of the great democratic tradition in America.

ENGLISH 443 Modern Drama

An historical survey of trends, dramatists, plays, and accomplishments from Ibsen to the latest prize plays on Broadway provides background for this course.

Credit: 2 semester-hours

English 445. Eighteenth Century Literature

Major essayists, poets, dramatists, novelists, and letter writers are read and evaluated in terms of the thought, life, and literary movements of their own time and of their significance for the present generation.

Credit: 2 semester-hours

ENGLISH 446. The One-Act Play

This course studies the one-act play as an art form, devoting special attention to plays which are suitable for high school production.

Credit: 2 semester-hours

English 447. Philosophy of Great Literature

By studying one or two masterpieces in a given semester this course aims to help the student develop a plan of study to achieve a systematic understanding of the philosophic world-views and life-views implicit in such works as: Aeschylus's trilogy, The Oresteia; Plato's Timæus; Boethius's Consolations of Philosophy; Dante's Divine Comedy; Shakespeare's Hamlet; Milton's Paradise Lost; Pascal's Pensées; Goethe's Faust; Blake's The Marriage of Heaven and Hell; Dostoievski's Brothers Karamazov; Mann's The Magic Mountain; Hesse's Demian; Henry Adams's Mont St. Michel and Chartres; the Bhagavad-Gita; Lao-tse's The Book of Tao; and Auden's Collected Poetry.

Credit: 2 semester-hours

English 448. Choral Speaking

As members of a speaking choir, students acquire skill in interpreting various forms of literature suitable for group treatment.

Credit: 2 semester-hours

English 449. Public Speaking

This is an advanced course in the theory and practice of public speaking. It provides opportunity for training in the more complex speech skills, especially in the techniques of leadership in speech situations and the techniques for making speech responses in cooperative situations.

Prerequisite: English 204 or the equivalent

Credit: 2 semester-hours

English 450. American Drama in American Democracy

This course studies the part played by American drama in the evolution of American democracy from the eighteenth century up to the contemporary period.

Credit: 2 semester-hours

ENGLISH 451. Literature and Art in Western Culture

This course deals with the nature of literature and considers its importance as a factor in the development of international understanding. It deals with the relation between the use of language in literature and with the methods of art, since the re-creation of experience is a function common to both. Through reading the literature which is being read by our neighbors today, both in Europe and in the Western Hemisphere, students are able to participate in a common experience with them.

Credit: 2 semester-hours

English 454. Training the Speaking Voice

This is a course in the study of the problems of speech, the development of a pleasing speaking voice with precision in diction, and the application of speech skills to practical speaking situations.

Credit: 2 semester-hours

English 455. Reading Interests of High School Students

Through wide reading, study and preparation of bibliographies, and establishing criteria for judging current books, the student is prepared to guide the recreational reading of junior and senior high school students. Credit cannot be given for both English 301 A and 455.

Credit: 2 semester-hours

ENGLISH 456. Play Direction

This course covers the choosing and casting, as well as directing, of plays. Scenes are directed for class criticism, and a detailed prompt-book of one play is prepared. This course complements English 435.

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ENGLISH 457. Workshop in Speech Activities

It is the purpose of this course to prepare students to organize and to conduct assembly programs, PTA demonstrations, and similar activities. Class lectures and discussions cover all phases of the director's responsibilities. Groups conduct research on suitable program materials and share their findings with classmates. Each student prepares a list of programs of various types which he could present during a school year.

Credit: 2 semester-hours

ENGLISH 458. Radio Directing

This course offers training in the organization and direction of radio programs, and equips the student to select material for broadcasting and to cast and to rehearse programs. Listening is directed toward an analysis of common radio presentation techniques and the appreciation of successful programs.

Credit: 2 semester-hours

ENGLISH 459. A Survey of Great Chinese Literature

Some of the contributions which have gone into the making of Chinese literature, such as the *Book of Odes* of Confucius, the poems of Li Po and Tu Fu, the Lute Song, and the Dream of the Red Chamber, are considered in this course. Aside from a general survey of the great literature of China special attention is given to English translations of the masterpieces of Chinese literature. There are twenty-four hours of lectures in the morning; after lunch each day a period of forty-five minutes is devoted to informal talks, story-telling, singing of Chinese songs, and showing of motion pictures. During the workshop period individual students work on specific topics under the guidance of the instructor.

Prerequisite: Social Studies 499—Introduction to Chinese Culture

Credit: 3 semester-hours

English 460. American Literature of Social Problems

This course surveys the American literature which presents social problems during the period from 1800 to 1914 in an attempt to discover the attitudes of the various authors toward these problems. The works of such authors as Cooper, Lowell, Thoreau, Whitman, Howells, Bellamy, Garland, and Glasgow are studied from this point of view. Enough of the social background of the period is discussed to give the necessary perspective for the discussion of the literature,

but the emphasis is placed on the reflection of the problems in literature and not merely on the problems themselves.

Credit: 2 semester-hours

English 461A. Speech Laboratory Practice

After the techniques of interviewing, of preparing case histories, of diagnosing speech disorders, of planning therapies, and of determining prognoses have been taught through lectures and demonstration lessons, each student is assigned one or more persons with speech defects for supervised practice in correcting speech disorders. Credit is given on a laboratory basis, and the course meets three hours weekly. This course is required for the teaching of speech defectives.

Credit: 2 semester-hours

English 461B. Advanced Speech Laboratory Practice

This course provides for additional supervised speech correction practice with adults or children with speech disorders. Credit is given on a laboratory basis, and the course meets three hours weekly.

Credit: 2 semester-hours

ENGLISH 462. Group Discussion and Leadership

Students are taught the principles of democratic discussion and methods for guiding the committee meeting, panel symposium, lecture, and debate forums. Frequent opportunities to apply these principles and methods are given through discussion of topics chosen by the class.

Credit: 2 semester-hours

English 463. Audio-Visual Aids in Teaching Speech

The aim of this course is to equip prospective teachers to understand the desirable characteristics; capabilities; and all possible uses of charts, models, projection equipment, and magnetic and disc recorders available for the teaching of speech. The distribution, cost, operation, servicing, and storing of instruments and of supplies are also considered.

English 464. Speech Psychology

The mental processes involved in acquiring language and in using it in effective oral communication are reviewed. Problems involving psychological principles as they apply to oral teaching, to audience leadership and control, to the alleviation of stage fright, and to the teaching of speech improvement are considered along with the principles of general semantics.

Credit: 2 semester-hours

ENGLISH 465. Speech Arts Activity

Each speech major is required to earn at least one semester-hour of credit in some supervised speech arts activity, such as: playing a major role in a major production; directing a three-act play or its equivalent; giving a public play reading or lecture recital; directing a series of assembly programs; or directing and producing a series of radio programs.

Credit: 1 semester-hour

English 466. Speech Development: Improvement and Reeducation

This course is intended for superintendents, principals, and class-room teachers who have little or no background in speech education. Consideration is given to the following topics: (1) speech development; (2) speech difficulties or problems found on the kindergarten, elementary, and secondary school levels; (3) acquisition of good voice and speech characteristics; (4) use of techniques and materials in classrooms to motivate good speech patterns; and (5) ways of setting up and integrating speech education in school systems. Demonstrations with individuals and groups are made, and students are expected to prepare a practical project.

Credit: 2 semester-hours

English 467. Oral Interpretation for the Teacher

This course is organized as a laboratory to help the teacher develop his potentialities in oral reading. Each student is given many opportunities to read aloud and to participate in informal critiques. Assistance is given in compiling a repertory of selections most useful in daily teaching.

DEPARTMENT OF FOREIGN LANGUAGES

In answer to the growing demand for graduate work, the Foreign Language Department offers a program based on STUDY ABROAD. Through personal contact and experience, the student, thus, can increase both his knowledge and understanding in respect to the people whose language he is preparing to teach. This means that the student will do part of his graduate work at a selected college in a country where the language of his major is spoken. To assist with this program of STUDY ABROAD, the Foreign Language Department yearly offers scholarships for qualifying applicants. These scholarships are sustained by a Student Exchange Fund. Students who are interested in obtaining a STUDY ABROAD scholarship should consult with the Head of the Department for particulars. Sixteen semester-hours of graduate credit are granted for this work. The remaining sixteen hours necessary for the Master's degree are to be selected from graduate courses offered at Montclair. There is also required a final comprehensive examination in the student's major field. The following plan outlines the work for a Master's degree in the Department of Foreign Languages:

Required Courses		Credits	
French 502 Study Abroad	16	semester-hours	
Spanish 502 Study Abroad Integration 503 Methods and Instruments of Research Electives (To be selected in consultation with the Head		semester-hours	
of the Foreign Language Department) Integration courses Graduate courses in other departments of the college		semester-hours	
Total	32	semester-hours	

Final comprehensive examination in major field of foreign language.

FRENCH 502. Study Abroad

Credit: 16 semester-hours

SPANISH 502. Study Abroad

DEPARTMENT OF INTEGRATION

Graduate courses in this department meet one or more of three needs: (1) instruction in Administration and Supervision, leading to the A. M. degree and New Jersey certification for one or more of the positions of Subject Supervisor, General Supervisor, Elementary School Principal, Secondary School Principal, Supervising Principal, and Superintendent; (2) instruction in Personnel and Guidance, leading to the A. M. degree and New Jersey certification in guidance; and (3) instruction in advanced professional courses for the classroom teacher.

In pursuit of the above objectives most graduate courses in the Department of Integration are designed for students who are having or have had teaching experience. Other courses presuppose at least a teaching certificate. Enrollment in graduate Integration courses, therefore, is subject to the following restrictions:

- 1. Students Who Do Not Have a Teaching Certificate—Graduate students in this classification may enroll in undergraduate and senior-graduate (400 level) courses in order to meet certification requirements. They also may enroll in the following graduate Integration courses: 500A, 500B, 500C, 505, 540, 550, 551, and 552. (These courses are designated in the descriptions below by a single asterisk *.) Not more than eight semester-hours earned in senior-graduate and the graduate courses listed above may be counted toward an A. M. degree in the Integration Department.
- 2. Graduate Students Who Possess a Teaching Certificate But Who Have No Teaching Experience—Students in this classification may enroll for any of the courses listed in the previous paragraph and also Int. 500D, 500E, 500F, and 503. (These additional courses are designated below by a double asterisk **.) They may count no more than eight semester-hours in any courses earned prior to matriculation for the A. M. degree.
- 3. Students Matriculated for the A. M. Degree—Graduate students working toward an A. M. degree in either the field of Administration and Supervision or Personnel and Guidance are permitted to matriculate only when they are having or have had teaching experience. Students majoring in Personnel and Guidance are required to have two years of teaching experience before the degree can be conferred.

- 4. Students who plan to remain classroom teachers are not encouraged to seek an A. M. degree in either the field of Administration and Supervision or Personnel and Guidance.
- 5. Courses in the teaching of elementary school subjects are offered primarily to help graduate students to complete certification in this field. Such courses may be counted toward an A. M. degree only under certain conditions which are outlined by the Integration Department graduate adviser.

I. COURSE REQUIREMENTS FOR THE A. M. DEGREE IN ADMINISTRATION AND SUPERVISION

- A. Graduation from an accredited college or university, a New Jersey teacher's certificate, and two years of teaching experience. (Not more than eight semester-hours will be counted toward this degree prior to the obtaining of this certificate and experience.)
- B. Satisfactory completion of not fewer than 32 semester-hours as follows:

D.	Da	tisfactory completion of not rewer than 32 semester-nours as for	10115.	
	1.	Basic Requirements	S.H.	
		Int. 500A. Basic Educational Trends	2	
		Int. 500D. School Administration I. Functions, Organization	2	
		Int. 500E. School Administration II. Law and Finance	2	
		Int. 500F. School Administration III. Community Relations	2	
		Int. 503. Methods and Instruments of Research	2 2	
either	2	For Specialization in Secondary Education		
CITILOI		Int. 508. Supervision of Instruction in Secondary Schools	2	
		Int. 502. Organization and Administration of the Modern		
		High School	2	
		Int. 504A. Curriculum Construction in the Secondary School	2 2	
			_	
or	2.	For Specialization in Elementary Education		
		Int. 517. Administration of the Elementary School	2	
		Int. 518. Supervision of Instruction in Elementary Schools	2	
		Int. 548. Curriculum Construction in the Elementary School	2	
	3.	Electives in Integration		
		The student with his adviser's approval will select a minimum		
		of 8 semester-hours in additional Integration courses		
		numbered 400 or above.	8-16	

numbered 400 or above.
4. Electives in other departments

A student may count toward the degree not more than eight semester-hours in other departments of the College. He is encouraged to elect courses which will broaden his interests and background.

0-8

Total

Notes:

- Graduates from New Jersey State Teachers Colleges may transfer not more than eight semester-hours of graduate work to be counted toward this degree upon approval by the Chairman of the Graduate Committee.
- Students who are interested in obtaining principals' or supervisors' certificates may obtain mimeographed lists of the courses which will be counted toward these certificates.

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II. COURSE REQUIREMENTS FOR THE A. M. DEGREE IN PERSONNEL AND GUIDANCE

- A. Graduation from an accredited college or university, a New Jersey teacher's certificate, and two years of teaching experience. (Not more than eight semester-hours will be counted toward this degree prior to the obtaining of this certificate and experience.)
- B. Satisfactory completion of not fewer than 32 semester-hours as follows:

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	Int. 500F. Int. 503. Int. 520. Int. 521A.	nirements (Total of 20 semester-hours) Community Relations Methods and Instruments of Research Principles of Mental Hygiene Educational and Psychological Measurement in Guidance	S. H. 2 2 2 2 2
her	Int. 550. Int. 551. Int. 535. Int. 536. Int. 537.	Advanced Educational Psychology Child and Adolescent Development Principles and Techniques of Guidance Vocational Guidance Educational Guidance Social-Moral Guidance Group Guidance and Counseling Activities	2 2 2 2 2 2 2
2.	Int. 602. Int. 505. Int. 530A. Int. 521B.	lectives (Minimum of 4 semester-hours required) Seminar in Guidance Organization and Aaministration of Extra- Curricular Activities Corrective and Remedial Reading in Secondary Schools Psychological Tests in Guidance Programs Speech Development: Improvement and Re- education	4 2 2 2 2
3.	permitted) Courses in ments of tl Math. 40 Soc. St. 43 Soc. St. 44 Soc. St. 44 Soc. St. 45 Eng. 46 Int. 40	Electives (Maximum of 8 semester-hours related and unrelated subjects in other departments of the College of the Educational Statistics of the Family and Its Problems of the Social Bases of Human Relations of Modern Economic Problems of the Speech Psychology of Radio and Sound Equipment in the Classroom ther courses in the graduate program	2 2 2 2 4 2 2
	To	tal	32

Note:

1. Graduates from New Jersey State Teachers Colleges may transfer not more than eight semester-hours of graduate work to be counted toward this degree upon approval by the Chairman of the Graduate Committee.

GRADUATE COURSES

*Integration 500A. Basic Educational Trends

This course deals with the historical background which administrators and supervisors, as well as teachers, need in order to evaluate problems and policies in due perspective. It emphasizes the current trends in American society and their bearing upon education. It also considers philosophies concerning the causes of rises and declines in outstanding civilizations and the part education could play among them.

Credit: 2 semester-hours

*Integration 500B. Advanced Educational Psychology

The course covers the various aspects of growth. Individual differences, their measurement, and their bearing on educational practices and principles furnish topics of study and discussion. Principles and laws of learning are reviewed. Some time is given to problems of personality as encountered in school work. The several points of view which have been prominent in the psychology of the past fifty to seventy-five years are examined for their contributions to thinking about human nature.

Prerequisite: An introductory course in psychology.

Credit: 2 semester-hours

*Integration 500C. Recent Trends in Secondary School Methods

This course emphasizes the fundamental principles underlying the technique of teaching on the secondary school level. Some of the topics considered are: organization of knowledge, the logical and psychological aspects of method, developing appreciations, social-moral education, teaching motor control, fixing motor responses, books and verbalism, meeting individual differences, guidance in study, tests and examinations, marks and marking.

Credit: 2 semester-hours

**Integration 500D. School Administration I: Functions and Organization

This introductory course in educational administration is concerned with general functions and personnel, as well as with the general organization, of public education on local, State, and national levels. It deals also with Federal-State relations, the State and sectarian education, the expanding scope of modern school systems, types and bases of school organization, and professional ethics.

**Integration 500E. School Administration II: Law and Finance

This course acquaints the student with the allied fields of school law and school finance, with special reference to New Jersey. Its topics include basic principles of public school support, taxation, Federal aid, educational finance, legal provisions for school district borrowing, tenure provisions, and rights and duties of school boards and officials

Credit: 2 semester-hours

**Integration 500F. School Administration III: Community Relations

This course concerns the relation of the school to other educational efforts of the community. It considers the scope and types of agencies and informal influences of an educational nature, and also the agencies and methods by which the best total co-operative effort can be attained. It deals also with methods and plans of publicity. Constant reference throughout is made to New Jersey localities.

Credit: 2 semester-hours

INTEGRATION 502. Organization and Administration of the Modern High School

The following topics are considered: the student personnel, building and revising the high school curriculum, providing for individual differences, making the school schedule, records, the guidance program, pupil participation in government, the extra-curricular program, the health program, the safety program, discipline, library and study hall, cafeteria, the principal's office, and evaluating results.

Credit: 2 semester-hours

**Integration 503. Methods and Instruments of Research

This course is required of all candidates for the Master's degree without regard to their field of major interest. Its purpose is to introduce students of education to research and its practical application to professional problems. The course treats: the nature and types of educational research; methods and techniques of educational research; and the tools used in interpreting statistical data. During the course the student sets up a problem and plans and carries out its solution. It is recommended that this course be taken early in the graduate program.

Prerequisite: Mathematics 400

INTEGRATION 504A. Curriculum Construction in the Secondary School

The purpose of this course is to introduce the student to constructive criticism of American culture, to consider the extent to which the secondary school curriculum meets the needs of a changing civilization, and to consider effective means of curriculum construction.

Credit: 2 semester-hours

INTEGRATION 504B. Seminar in Curriculum Organisation

This course is for students actively engaged in problems of curriculum reconstruction and those who are anticipating committee work in this field. This work is conducted under seminar or individual guidance and the hours for the conferences will, therefore, be arranged personally between the student and the instructor. (Integration 504A or Integration 548 is prerequisite to this course.)

Credit: 2 semester-hours

*Integration 505. Organization and Administration of Extra-Curricular Activities

The first part of this course considers such general problems of extra-curricular activities as: their growing importance; their relation to the curriculum; the principles underlying their organization, administration, and supervision; and methods of financing. In the second part, an intensive study is made of the home room, the assembly, the student council, clubs, athletics, school publications, and other activities in which the class is especially interested.

Credit: 2 semester-hours

INTEGRATION 508. Supervision of Instruction in Secondary Schools

This course emphasizes the more practical phases of supervision which are met most frequently by those engaged in it. Among the topics are: the set-up for adequate supervision, supervision as encouraging and guiding the growth of teachers and the improvement of educational procedures, the supervisory functions of teachers' meetings, discussion groups, general and professional reading, the writing of articles, co-operative curriculum modification, utilization of community resources, and teacher intervisitation.

INTEGRATION 510. Seminar in Secondary Administration and Supervision

In this course the class makes an intensive study of administrative and supervisory problems suggested by the educational events and trends of the year, by the interests and responsibilities of the members of the class, and by educational movements in New Jersey and the country. Each student does an individual piece of research which he reports to the class. This represents advanced work which depends upon previous study or experience in educational administration or supervision. (Prerequisites: Integration 502 or 601A, and 508 or 601B.)

Credit: 2 semester-hours

INTEGRATION 517. Administration of the Elementary School

This course analyzes and evaluates the administrative duties and relationships of the elementary school principal. Particular consideration is given to: building management, effective use of the school plant, sanitation, health service, the library, personnel management, the administration of the curriculum, community relationships, and publicity.

Credit: 2 semester-hours

INTEGRATION 518. Supervision of Instruction in the Elementary School

This course has been planned for those engaged in the supervision of the elementary school, and for those who are preparing for such responsibilities. Principles of classroom supervision are developed and applied to learning situations. Among the more important topics that receive attention are: the nature and function of supervision, the organization necessary for effective supervision, the nature and significance of the teacher's purposes, the methods and techniques of group and individual supervision, the technique of observation, and the supervisory conference.

Credit: 2 semester-hours

INTEGRATION 520. Principles of Mental Hygiene

This course is designed to be a general survey of the principles and practices of mental health with special reference to the mental health of teacher and pupil. It involves a thorough grounding in fundamental principles of mental hygiene with much practical consideration of the mental-health values of instructional programs and procedures. Discussion centers in practical efforts to develop wholesome personalities in our schools.

Integration 521A. Educational and Psychological Measurement in Guidance

This course deals with fundamentals of educational and psychological measurements in guidance: test theory, statistical concepts, test construction, evaluation, and interpretation. The place of tests in the instructional program is stressed.

Credit: 2 semester-hours

INTEGRATION 521B. Psychological Tests in Guidance Programs

This course is designed to familiarize the student with various psychological tests and scales that may be used in guidance programs in the secondary school. The student is given practice in administering many types of group tests. This includes scoring the tests and evaluating the results, with a discussion of ways in which these results may be used. Much time is spent in actual laboratory demonstrations of tests, giving students an opportunity to serve as subjects and as examiners. Class discussion is based upon first-hand information gained through use of the tests, on readings, and on class reports.

Prerequisite: Integration 521A

Credit: 2 semester-hours

INTEGRATION 529. Field Work in Guidance

The aim of the course is to introduce the student to various aspects of guidance through experience in agencies actually dealing with such problems. Students observe and participate in activities of the agencies to which they are assigned and write full accounts of these observations and experiences. Some time is spent in discussing and evaluating these experiences and relating them to the literature of the subject. Prerequisites are: experience in teaching; familiarity with the literature on all aspects of guidance and mental hygiene; and INTEGRATION 500B, 520, and 551. This work is conducted by seminar and individual guidance. The hours for the conferences are arranged personally by student and instructor.

Credit: 4 semester-hours

INTEGRATION 530A. Corrective and Remedial Reading in Secondary Schools

This course offers an investigation and interpretation of the reading problems which are found in secondary school classes. A study is made of the causes of reading difficulties, methods of diagnosis, and techniques of remedial and corrective teaching. Particular attention

is given to the selection and adaptation of suitable curriculum materials. Guidance is given to teachers with individual case problems of retarded, normal, and superior pupils. Illustrative material is taken from case studies developed by classroom teachers.

Credit: 2 semester-hours

INTEGRATION 530B. Workshop in Corrective and Remedial Reading in Secondary Schools

This course is designed for students who are directing or instituting programs of remedial and corrective reading and for those who are teaching individuals and classes in such programs. For the most part each student works intensively on his own teaching problem, receiving suggestions and recommendations as the work progresses. Some topics of common interest are: diagnosis, remediation, evaluation, organization and administration of reading programs; use and cost of materials and equipment; relation to the rest of the educational program of the school.

Prerequisite: Integration 530A or the equivalent, or considerable experience in remedial work

Credit: 2 semester-hours

Integration 532. The Supervision and Teaching of Reading in Elementary Schools

The place of reading in the entire elementary school program is analyzed. Attention is given to necessary remedial work for junior high school students. Materials and their use in instructional programs are studied with a view toward increasing power. All growth levels are considered. Good first teaching is of primary concern; however, the analysis and correction of certain reading difficulties constitute an important portion of the course.

Credit: 2 semester-hours

INTEGRATION 534. Community Resources for Guidance

This course deals with the various agencies, industries, and institutions available in the surrounding communities for use in guiding students. In addition to becoming familiar with the location and nature of these facilities students learn the techniques for arranging student interviews and visits. Class discussion and personal research are supplemented by field trips.

INTEGRATION 535. Vocational Guidance

This course is intended for counselors in the junior and senior high schools to obtain information about the principles and philosophy of vocational education and the techniques of counseling youths who wish to receive pre-employment training, and for counselors of out-of-school groups who are attempting to make readjustments to occupational life. Attention is also given to guidance techniques for job preparation and readjustment, the matching of educational and personal abilities to job specifications, the effects of social legislation on the employment of youths, and a study of techniques used in determining occupational needs and occupational changes.

Credit: 2 semester-hours

INTEGRATION 536. Educational Guidance

This course is concerned with the facilities available for education after high-school graduation, the problem of further training for pupils leaving school before completing high school, and the academic problems of students while in school. A brief survey of colleges and college-admission procedures is made.

Credit: 2 semester-hours

INTEGRATION 537. Social-Moral Guidance

This course is concerned with the non-vocational and non-academic personal and social problems of pupils as well as with the development of techniques by which counselors can integrate the pupil's personal life with the mores and customs of society. It also includes a study of the possible services of various community agencies and a study of the counselor's relation to problems of discipline and citizenship education.

Credit: 2 semester-hours

INTEGRATION 538. Group Guidance and Counseling Activities

This course is concerned with the various techniques for helping individual pupils and for using group activities including role-playing as a guidance technique. The group activities considered include those of home rooms, activity periods, occupation courses, student field trips, placement follow-ups, college nights, and career days.

*Integration 540. Recreational and Activity Leadership

It is the aim of the course to furnish each student with practical skills that are of service in dealing with young people of high school age. The practical side is supplemented by a thorough consideration of source material and theory. A partial list of the areas covered in the course follows: how to organize and handle groups, the use of leaders from within the group, indoor games, outdoor games, special hikes, outdoor cooking, camp-fire leadership. Special field trips are provided to observe camps and playgrounds in operation.

Credit: 2 semester-hours

Integration 548. Curriculum Construction in the Elementary School

This course offers an opportunity to review state and city elementary curricula; to discuss the principles of curriculum construction; to collect new teaching materials for the various subjects; and to evaluate, organize, and grade these materials. Teaching procedures in the use of materials are discussed and evaluated in terms of pupil needs, the objectives set up, and the results obtained. This course offers an opportunity to make a special study of the materials and procedures to be used in the supervision of the language arts.

Credit: 2 semester-hours

* Integration 550. Child and Adolescent Development

This course reviews the general characteristics of child and adolescent development: motor and physiological, social, emotional, language, intellectual, and interests and ideals. The influence of home, school, community, and institutional life on child and adolescent development are considered as well as problems of guidance presented by children in the normal course of development and also those presented by deviations from the normal course.

Credit: 2 semester-hours

* Integration 551. Principles and Techniques of Guidance

Topics included in this course cover: philosophy of guidance, history of the guidance movement, the need for guidance presented by children and adolescents. The methods of gathering useful data are studied, and school records, exploratory activities, tests, inventories, the case study approach, occupational information, and occupational data are treated as well as general methods of guidance with special stress on interviewing and counseling of students.

* Integration 552. The Junior College Curriculum

This course considers admission requirements, required and elective courses, course contents, and supplementary extra-curricular and guidance activities of the jumor college. As a background for a consideration of the principles underlying junior college curricula, there is a brief treatment of the beginnings, aims and functions, administrative organizations, and general trends of American junior colleges.

Credit: 2 semester-hours

Integration 553. Core-Curriculum and Life-Adjustment Programs in High Schools

This course concerns two leading educational developments of the last decade after a discussion of their philosophy and historical antecedents. The most significant school programs already adopted to put these developments into practice are presented in detail.

Credit: 2 semester-hours

INTEGRATION 601. Workshop in Education

Section A-Organizing and Administering the School

Section B-Supervising Instruction

Section C-Dealing with and Understanding Youth

The workshop course enables the graduate student to devote his time to an educational topic or school problem of current interest to him and to secure the help of the staff, fellow students, and college facilities in pursuing this study. Members of the workshop may meet together to discuss matters of common concern in respect to the current school situation. In addition, the student works independently on his own subject and at times meets with a small group interested in the same area.

In the past, students have worked on topics in such areas as these: problems in administration, guidance programs, extra-curricular activities, school philosophies, problems in supervision, curriculum planning, and community relations. The success of the workshop depends much upon the student knowing what he wants to accomplish in six weeks, the procedure being flexible enough to support his purposes. He must have his proposed problems for study approved by the Director of the Workshop before he enrolls for the course.

The workshop is offered only in the summer session. It is divided into three sections, as noted above. The student may enroll for four semester hours credit or for two, the four calling for two periods of scheduled time in the course daily, the two calling for one period of scheduled time in the course. The student taking the course for two credits enrolls for one of the three fields: A—administration. B—

supervision, or C—guidance. The student taking it for four credits may do all the work in one of these three fields, or he may enroll for two hours credit in one and two in another.

Credit: 2 or 4 semester-hours

INTEGRATION 602. Seminar in Guidance

This course is designed to provide a laboratory situation for the exploration and study of the present practices with respect to the three major phases of the guidance program. Usually this seminar is given in conjunction with either Vocational (Integration 535), Educational (Integration 536), or Social-Moral (Integration 537) Guidance. The major portion of the time is spent on field trips, in private investigation, and in research.

Prerequisites: Integration 551, and have taken or be taking in conjunction one of the courses of major emphasis listed above

Credit: 4 semester-hours

INTEGRATION 603. Principles and Practices of Research

The purpose of this course is to introduce students of education to research and its practical application to professional problems. The course treats: the nature and types of educational research; methods and techniques of educational research; and the tools used in interpreting statistical data. During the course the student selects a problem and begins the research which will be completed the second semester.

Prerequisite: Mathematics 400 or equivalent

Credit: 4 semester-hours

SENIOR-GRADUATE COURSES

Most of the following courses are set up to serve graduate students as well as College seniors. To carry graduate credit, the course in question must be approved by the candidate's adviser. In all instances, Integration 406, Integration 409, and Integration 410 will be accepted as work for either of the two graduate degrees in this department. For a more complete description of these courses see the undergraduate catalog.

INTEGRATION 400A. Principles and Philosophy of Secondary Education

This course evaluates educational objectives, techniques, procedures, and organizations in relation to the needs and demands made upon the school by society and by the student.

INTEGRATION 400B. Practicum in Secondary Education

This course follows the student-teaching. It makes use of the teaching problems encountered by the students in the preceding twelve weeks, as well as similar problems reported by students in former years.

Credit: 2 semester-hours

INTEGRATION 406. Educational Sociology

This course deals with the application of sociological principles to educational problems. The school is treated as a part of the community, and the various social forces that affect the school and its administration are considered.

Credit: 2 semester-hours

Integration 407A. Television in Education Workshop: Programming and Production

This is a laboratory course designed to develop the techniques, methods, standards, procedures, and criteria pertaining to the special place of television in education. Through the utilization of studio equipment together with the resources of all the academic departments of the college, student potentialities, campus life, and the community, students receive experience in planning, developing, and producing, television programs of educational value. Actual training is given in the use of standard television equipment on campus, and field trips are made to local television laboratories and studios.

Credit: 2 semester-hours

Integration 407B. Television in Education Workshop: Classroom Utilization

This course is designed to give training in the following areas of television education: types of programs best suited for classroom use; practical applications of programs emanating from commercial stations; various subject areas in which television might be used such as language, science, art, social studies, etc.; script writing; coordination of program and school schedules; and the possible use of educational television stations and how they best serve surrounding communities. Students are also introduced to the operation of both sending and receiving television equipment so that they may understand program possibilities and limitations.

Integration 408. Selection and Utilization of Audio-Visual Materials

Sources, selection, and evaluation of audio-visual aids are studied in this course. Techniques in developing individual reference catalogs of audio-visual aids are stressed.

Credit: 2 semester-hours

INTEGRATION 409. Radio and Sound Equipment in the Classroom

This course trains teachers and school executives in the use of radio programs, amplifying systems, recording equipment, and record players. Actual practice is given in the use of these educational aids. Problems of script-writing, microphone and recording techniques, and program directing are considered.

Credit: 2 semester-hours

INTEGRATION 410. Teaching Materials Workshop

This course is for those persons who wish to study advanced problems in the utilization and administration of audio-visual materials. Individual research is stressed, and there is an opportunity to work out individual projects.

Credit: 2 semester-hours

INTEGRATION 411. Educational Motion-Pictures Workshop

This course includes various phases of the planning and production of educational motion pictures. Students receive actual experience in scenario writing, costume research, set designing, lighting, photography, editing, and sound recording. During the course an educational film is produced as a class project.

Credit: 2 semester-hours

INTEGRATION 420A and 420B. The Community Centered School

This course deals with the development and functions of the school as a community resource. Students assemble and interpret data relating to actual school and neighborhood situations. Consideration is given to the social framework in which the school operates; racial and national minorities; intercultural education; truancy and delinquency; and the discovery and utilization of community resources. The use of school personnel and facilities to deal with racial problems is treated in light of the data assembled.

Integration 421A and 421B. Leadership of Activities and Services in Community Education

This course is designed to prepare teachers and others to give leadership to community-education activities. Starting with the assumption that the school should serve as a community center, members of the course proceed to learn about the various activities and programs that can be initiated and carried on by the school. Consideration is given to programming, utilization of space and personnel, and care of equipment. Techniques for organizing and directing special programs such as scouting, folk dancing, crafts, field trips, production of films, forums and debates, etc., are included.

Credit: 4 semester-hours

Integration 422A and 422B. The Organization. Administration, and Supervision of Programs in Community Education

This is a workshop type of course which emphasizes the integration of school, social, recreational, and adult education programs. The course presents a survey of current trends in community education as adopted and implemented by boards of education throughout the country. Principles, policies, practices, and problems related to the administration and supervision of community-education programs are surveyed. The following types of programs are considered: summer playgrounds, day camps, after-school centers, evening centers, youth and adult recreation centers.

Credit: 4 semester-hours

INTEGRATION 430. Techniques for Improving Reading Abilities

This course deals with the diagnosis and remedial treatment of difficulties in reading. A study is made of the basic principles underlying desirable reading experiences and their application in guiding children to success in learning to read adequately.

Credit: 2 semester-hours

INTEGRATION 440. Camping Education

The purpose of this course is to familiarize the students with camping and outdoor education as educational methods utilized by the schools of America. The aims and methods of camping are studied, and consideration is given to the communities that have active camping and outdoor education programs in operation.

When given through the Part-Time Division of the College, a week-end experience at the New Jersey State School of Conservation in the Stokes State Forest is required for credit in this course.

INTEGRATION 441. Conservation Education

This course is designed to give teachers and prospective teachers a background for organizing and teaching conservation on various grade levels. The need for conservation, the various kinds of natural resources, and some of the modern methods for using and renewing these resources are considered. Field trips, laboratory experiences, visual aids, printed materials, and visiting specialists combine to make this a useful introductory course for all teachers.

Credit: 2 semester-hours

INTEGRATION 442. Practicum in Camp Leadership

In this course the student has an opportunity to learn the techniques of camp leadership through practical experience, guided group study, and discussion. The practical experience comes through serving as a camp counselor in an actual camp situation.

Credit: 2 semester-hours

Integration 443. Practicum in Camping Education and Administration

This course is designed to provide practical experience in the identification and solution of problems arising in camp administration. Among the phases considered are discussion of current practices at both private and institutional camps, interpretation of educational philosophies and objectives as they relate to camping, finances, personnel selection, waterfront organization, food purchasing, staff supervision, sanitation, health and safety, camp management, records and reports, insurance, kitchen management, maintenance, and other phases of camp administration. Practical application is provided through the techniques used in the children's demonstration camp.

Prerequisite: Integration 440, Camping Education, or the equivalent

Credit: 3 semester-hours

Integration 444. Practicum in Conservation Education

This course is designed to provide teachers and supervisors with a background of experience and knowledge which will enable them to organize and to conduct conservation education programs in their own communities. Using an extensive library of conservation educational material, students formulate teaching units, lists of teaching aids, and projects suitable for use in their own communities. Participation in conservation projects with the children in the demonstra-

tion camp furnishes a practical background for research and discussion.

Prerequisite: Integration 441, Conservation Education, or Science 412, Field Studies in Science: Biological.

or Science 413, Field Studies in Science: Physical.

or the equivalent

Credit: 3 semester-hours

INTEGRATION 450. Psychological Foundations of Personality

This course is concerned with the physical, mental, and cultural bases underlying the formation of the personality of the individual. Emphasis is placed upon the implications for the teacher in developing understanding of the formation and measurement of personality.

Credit: 2 semester-hours

INTEGRATION E460. Public School Program of Studies

This title is given to a group of courses designed to meet requests from public school systems desiring help in curriculum reconstruction. Each of the parts of this general course will be given on a cooperative inter-college basis, and taught by specialists in the various fields selected from the faculties of the cooperating State Teachers Colleges. Certificates of credit will be issued by the college sponsoring the work.

460A-Principles of Curriculum Revision Part I.

460B—Workshop in Curriculum Revision Part II.

460C—Organization and Evaluation of Curricula Part III.

460D—The Social Studies Program of Studies 460E—The Language Arts Program of Studies Part IV.

Part V.

460F—The Science Program of Studies Part VI.

460G-Workshop in Materials and Methods of Part VII. Science Education

Part VIII. 460H—The Mathematics Program of Studies

These cooperative inter-college courses are provided only when the requests from the public school authorities of the county, municipality. or community are such as to require their use. No undergraduate may elect this course unless he is actively engaged in teaching. Not more than six semester-hours in these courses may apply on a graduate degree at the New Jersey State Teachers College at Montclair.

Credit for each part: 2 semester-hours

INTEGRATION 480. Field Science for Elementary Teachers

Working in a natural setting, rather than an artificial laboratory, this course stresses firsthand experience with natural phenomena and suggests what can be done to convey an understanding of these things to the elementary-school student. In developing an understanding of natural resources consideration is given to such areas as rocks and minerals, plant and animal life, astronomy, weather, and all outdoor phenomena, both physical and biological. If desired, collections are made under supervision, and some latitude is provided for individual specialization in some phase of field science. The student needs no formal scientific background for this course. Methods of teaching on the elementary-school level as well as subject-matter content are included. Simple demonstrations, experiments, collections, acquisition of free and inexpensive materials, reference publications, and the most recent methods and trends in field-trip procedure are considered.

Credit: 2 semester-hours

ELEMENTARY EDUCATION COURSES

Although the New Jersey State Teachers College at Montclair is engaged primarily in preparing secondary school teachers, during the present shortage of teachers in the elementary schools it was deemed expedient to offer courses in the field of elementary education for the undergraduates of the college leading toward certification to teach in these subjects. Under certain conditions courses in elementary education may be used for graduate credit. Students should check with their advisers in this connection.

DEPARTMENT OF MATHEMATICS

The primary objective of graduate study in the teaching of secondary mathematics is to meet the needs of a teacher in service. This is done by giving him a richer background in pure mathematics than he acquired in undergraduate study, by acquainting him with important applications of mathematics, and by leading him to make a careful study of current problems in the teaching and supervision of mathematics.

The teacher of secondary-school mathematics who wishes to pursue graduate studies leading to the Master's degree should consult the Head of the Mathematics Department in choosing those courses which best supplement his previous training. Of the thirty-two graduate credits required for the degree, eighteen or more (the exact number depending on the candidate's previous training) must be taken in the Department of Mathematics. In no case is a candidate matriculated for the degree who has not had courses in mathematics at least through differential and integral calculus.

A candidate who does not have a certificate to teach mathematics must have thirty undergraduate credits in mathematics before beginning graduate work. He should consult the Head of the Mathematics Department for advice in planning his work.

The requirements for a Master of Arts degree in the teaching of mathematics are:

REQUIREMENTS IN MATHEMATICS DEPARTMENT

I. At least 18 semester-hours of graduate courses in mathematics having 500 or 600 numbers are required. Of these credits, at least four semester-hours must be selected from each of these groups of courses:

A. Pure Mathematics

These courses are designed to give the teacher some acquaintance with certain important fields of higher mathematics. They include MATHEMATICS 503, 504, 511A, 511B. 512, 515, 516, 517, 521, 523, and 524.

B. Background in Mathematics

These courses supply the teacher with knowledge of the uses of mathematics in other fields of human endeavor and with the extension and generalization of secondary-school mathematics to more advanced topics. Such background information serves as a valuable source of enrichment to the teaching of secondary-school mathematics. The follow-

ing courses are included: MATHEMATICS 505, 509A, 509B, 509C, 510A, 510B, 510C, 528, 531, and 601.

C. Teaching and Supervision of Mathematics

These courses serve to familiarize the teacher with important problems in supervision, with experimental research in the teaching of mathematics, and with current problems in the organization and conduct of classes in secondary-school mathematics. The opportunity thus furnished for discussion of current problems of interest in the world of mathematical education makes it possible for the teacher to make well-considered decisions about courses of study, procedures, and techniques. The following courses are included: Mathematics 501A, 501B, 501C, 506, 507, 529, and 530

II. Requirements in the Integration Department

- A. Integration 503, Methods and Instruments of Research, for two semester-hours is required of all students.
- B. In addition, four semester-hours must be selected from these courses: Integration 408, 409, 500A, 500B, 500C, 504A, 505, 521A, 521B, 535, 536, 537, 538, 551, 553.

III. Elective Courses

A sufficient number of graduate courses having 500 or 600 numbers must be taken to make up a total of thirty-two semester-hours.

In lieu of four of the required thirty-two credits, the candidate may write a thesis giving the results of some study in the field of mathematics or its teaching. This study must be made after consultation with the Head of the Mathematics Department and under the sponsorship of a member of the mathematics faculty. Plans should be made to have such a study in its final form and approved by the Mathematics Department by March 1st of the year in which the degree is anticipated. The preparation of such a dissertation does not relieve the candidate of any of the required credits in mathematics.

Special permission must be obtained from the Head of the Department to receive credit for courses with numbers under 500.

IV. Final Examination

A final examination in mathematics is given all candidates prior to the conferment of the degree. This examination is general in nature and is designed to test the candidate's maturity of thought in mathematics and in the teaching of mathematics.

GRADUATE COURSES

MATHEMATICS 501A. Administration and Supervision of Mathematics, Part I

This course is concerned with the problems met in organizing and supervising the teaching of mathematics. There are considered the functions and qualifications of the supervisor of mathematics, inservice training of teachers, demonstration lessons, professional attitude and preparation of teachers, department meetings, selection of texts, current problems, research, and the basis for determining objectives.

Attention is paid to efficient methods of securing mastery of skills, the development of power in problem solving, and the organization of testing programs.

Credit: 2 semester-hours

MATHEMATICS 501B. Administration and Supervision of Mathematics, Part II

Particular emphasis is placed on such current problems of the high school as the organization of a four-year course in general mathematics, revision of the present college preparatory course, proposals for revision of, or changed emphasis in, the course in plane geometry, as well as suggestions for including some analytic geometry and calculus in the senior year. Reports of various commissions are also considered.

Credit: 2 semester-hours

MATHEMATICS 501C. The Teaching of Advanced Secondary School Mathematics

This course presents the best modern practices in teaching advanced algebra, trigonometry, solid geometry, and analysis in the last two years of the senior high school. Topics include: introducing trigonometry, teaching applications of trigonometry, variations in the sequence of topics, recent trends in the curriculum, the aims of teaching solid geometry, the elimination of certain subject matter and proofs, the use of algebra and trigonometry in solid geometry, making algebra thinking rather than manipulation, applications of advanced algebra, and the use of the function concept in unifying the mathematical knowledge of the student. A study is made of outstanding experiments in teaching these subjects and methods of adapting the material to the abilities and interests of the students.

MATHEMATICS 503. Foundations of Algebra

Careful consideration is given to the fundamental concepts and postulates which form the foundation of algebra. Upon this basis the development of our number system is traced through the application of algebraic operations. Algebraic analysis supplies the criteria for the possibility of geometric constructions. Also a brief survey is given of the general theory and use of rational integral functions.

Credit: 2 semester-hours

Mathematics 504. Modern Algebra

The modern algebraic theories of groups, rings, and number fields are studied. Particular attention is given to polynomials over a field, matrices and determinants, and the properties of linear independence and linear dependence.

Credit: 2 semester-hours

Mathematics 505. Consumer Mathematics: A Background for Teaching in the Junior High School

This course aims to survey the field of consumer problems, to display mathematics as a powerful tool in analyzing these problems, and to consider the placement and methods of teaching this material in the intermediate grades and in the junior high school. Some of the topics included are: the cost of raising children; the money value of a man; the cost of owning or renting a home; insurance; pensions and social security; stocks, bonds, and the financial page; the quality and cost of consumer goods; business cycles and indices of business activity.

Credit: 2 semester-hours

Mathematics 506. Current Research in Secondary Mathematics

A study is made of the findings of current research studies directly concerned with the teaching of secondary mathematics (grades 7—14) and of studies in the fields of arithmetic or of general education which affect the teaching of secondary mathematics. The effects of these studies on syllabi and on textbooks are also studied.

Credit: 2 semester-hours

Mathematics 507. The Teaching of General Mathematics

A study is made of the reports and recommendations affecting courses in general or integrated mathematics in secondary schools and in junior college. Methods of teaching classes in general mathe-

matics are studied when such methods differ from those used in the sequential courses, as well as the variations in subject matter in different courses.

Credit: 2 semester-hours

Mathematics 509A. A Critical Interpretation of Mathematics in the Senior High School, Part I

An opportunity is here offered for an investigation and interpretation of the algebra and geometry of the secondary school. The meaning and use of secondary mathematics are stressed, rather than the methods of teaching. Among the topics discussed are: algebra as a thought process and not a mechanical operation, types of thinking in algebra and geometry, fundamental laws of arithmetic, algebra as generalized arithmetic, geometrical interpretation of algebra, the function concept in algebra and geometry, the changing scope and subject-matter of Euclidean geometry, limits and incommensurables, and integration (i. e., correlation and fusion) of all secondary mathematics.

Credit: 2 semester-hours

Mathematics 509B. A Critical Interpretation of Mathematics in the Senior High School, Part II

Among the topics discussed are: the development and use of the limit concept in secondary mathematics; the introduction of analytic geometry and calculus; the geometry of space; permutations and combinations; the elements of probability and statistics. The subject matter is adapted to the secondary level and treated from the professional viewpoint.

Credit: 2 semester-hours

Mathematics 509C. A Critical Interpretation of Mathematics in the Junior High School

The aim of this course is to give teachers a deeper insight into the subject-matter usually taught in the seventh, eighth, and ninth grades. Among the topics considered are: the nature of graphs, an intuitive and experimental approach in geometry, the arithmetic and algebra for social use and interpretation, approximate measures and mensuration, and integration with other subject fields. The course is open to all junior and senior high school teachers and those elementary school teachers who have had two years of high school mathematics

MATHEMATICS 510A. Mathematics in its Relation to Other Fields of Knowledge: Social Sciences

This course examines some of the fundamental topics that are common to both mathematics and social studies and considers the integration of these topics in the secondary school curriculum. Topics studied include: measurement in social science; presentation of social data; use of index numbers; distribution of wealth and income; concept of utility; supply and demand curves; break-even charts; theory of interest and investment; probability and expectation, insurance, social security, and pensions; analysis of time series and business cycles.

Credit: 2 semester-hours

MATHEMATICS 510B. Mathematics in its Relation to Other Fields of Knowledge: Science, Art, and Music

In this course there are introduced such topics as mechanics and vector analysis, wave motion, geometrical optics, weather forecasting, mathematics in biology, chemistry, medicine, and geology; phyllotaxis (leaf arrangement in plants), spirals, laws of growth; static and dynamic symmetry, perspective, designs; and mathematics in music. Many of these topics should serve to enrich the background of secondary school teachers and encourage further study in special fields.

Credit: 2 semester-hours

Mathematics 510C. Mathematics in its Relation to Other Fields of Knowledge: Geography, Astronomy, and Navigation

An opportunity is here offered for mathematics teachers to become acquainted with the mathematics of mapping, astronomy, and navigation closely related to the algebra, solid geometry, and trigonometry taught in high school. A study of spherical geometry and trigonometry leads to topics in mathematical astronomy and geography, and to navigation. The discussion includes such topics as: latitude and longitude; time and the calendar; map projections; the making of star maps; sizes and distances of the sun, moon, planets, and stars; weighing the earth and moon; and relativity.

Credit: 2 semester-hours

MATHEMATICS 511A. Foundations of Geometry

A careful study is made of the fundamental postulates and basic principles underlying Euclidean synthetic and projective geometries. Past and present trends in this field and the resulting modifications are considered in connection with the historical background of cach. Finally, the development of the subject is briefly traced through certain fundamental groups of associated theorems and their generalizations.

Credit: 2 semester-hours

MATHEMATICS 511B. Non-Euclidean Geometry

The development of Hyperbolic-Non-Euclidean and of Elliptic Non-Euclidean geometry is carefully traced. A brief survey of the historical development of each is given. This course is designed for teachers and students of mathematics who desire a better perspective of the field of geometry.

Credit: 2 semester-hours

MATHEMATICS 512. Methods of Approximation

This course deals with the determination of functions from observed experimental data. Among the topics considered are: finite differences, symbolic operators, differencing, interpolation formulae, the Gamma function, and the Euler-MacLaurin formula. The course is designed to show the nature of mathematics as an applied science.

Credit: 2 semester-hours

MATHEMATICS 515. Differential Equations

This course is a continuation of the calculus considered from a new view-point. Various applications of differential equations and their standard methods of solution are fully treated in this course. Among the topics included are: linear differential equations of the first degree and of the first and higher orders, linear equations of the nth order with constant coefficients, linear equations of the second order, exact and total differential equations, simultaneous equations, numerical approximation, and partial differential equations.

Credit: 2 semester-hours

MATHEMATICS 516. The Theory of Functions

This course gives an introduction to the theory of functions of real and complex variables. This includes the properties of: continuity, differentiability, integrability, line integrals, Green's Theorem, Cauchy's Integral Theorem, and other general properties of analytic functions.

MATHEMATICS 517. The Theory of Numbers

This course offers a systematic treatment of certain fundamental properties of numbers. It includes such topics as: properties of integers; prime numbers; composite numbers; factorization; relatively prime numbers; properties of congruences and their solutions; fundamental theorems of Fermat, Euler, Wilson, Gauss, etc.; primitive roots of a congruence; quadratic residues; and certain types of Diophantine equations.

Credit: 2 semester-hours

MATHEMATICS 521. Analytical Mechanics

The fundamental basic principles of this course are Newton's laws of motion, whose applications and consequences are carefully considered in the study of such topics as: the composition and resolution of forces, the statics of a particle and of a rigid body, forces acting upon a body, friction, straight line motion, curvi-linear motion, work and energy, moment of inertia, etc. The need and usefulness of mathematics for the explanation of physical phenomena are clearly shown.

Credit: 2 semester-hours

MATHEMATICS 523. The Theory of Probability

In this course the applications of the theory of probability to life insurance, statistics, mechanics, and genetics are stressed. Special attention is paid to the implications of probability in secondary school mathematics, and to the teaching of probability in the senior high school. The ideas of choice in combinations and permutations are developed. The intuitive ideas and the classic paradoxes in the historical development of the theory are also considered. Additional topics considered are: continuous probability, the normal probability curve, and geometric probability. It is assumed that students taking this course have an understanding of college algebra and the elementary ideas of calculus.

Credit: 2 semester-hours

Mathematics 524. Statistical Inference and Sampling Theory

In this course the student considers the planning and execution of a statistical study. Among the topics considered are: moments and moment generating functions; binomial, Poisson, and normal distributions; the general theory of sampling; student's distribution; chisquare distribution; analysis of variance and co-variance; statistical control; and the design of experiments. The development of statistical reasoning is an important aim of the course. Applications are given to industrial, scientific, and social data.

Prerequisite: MATHEMATICS 408

Credit: 2 semester-hours

MATHEMATICS 528. Mathematics Materials for Student Activities and Club Programs

This course analyzes some of the large amount of material avail able for individual and club activities in mathematics. Mathematical recreation, plays, topics for essays or club programs, and popular books on mathematics are studied. The material considered varies from elementary arithmetical recreations for the elementary school to topics involving advanced mathematical ideas. Topics considered are: recreations; arithmetical, geometrical, and logical problems in arrangement, polyhedrons and crystallography, classical problems of antiquity, cryptography, magic squares, topological and unicursal problems.

Credit: 2 semester-hours

MATHEMATICS 529. Curriculum Construction in Mathematics

This course is conducted as a workshop or seminar in constructing curricula in mathematics. The chief objective of the course is cooperation with those communities which are planning changes in their courses of study. Among the topics considered are: the selection of aims, a study of recent courses of study in mathematics, the reports of various commissions, and other research pertinent to the questions at issue.

Credit: 2 semester-hours

MATHEMATICS 530. Mathematical Materials and their Applications in the Teaching of Mathematics

In this course the student considers the adaptation and use of multisensory materials to motivate and improve the teaching of high school mathematics. Particular attention is given: to the equipment needed for the modern mathematics laboratory and how it may be used effectively; to plans for the extra-curricular activities in mathematics, such as mathematics clubs and assembly programs; to such visual aids as pictures, lantern slides, motion pictures, and bulletin board exhibits; and to the books, periodicals, and pamphlets needed for the school and the teacher's library.

MATHEMATICS 531. Survey of Higher Mathematics

The principal aim of this course is to give the student some insight into the nature and content of various fields of higher mathematics. This includes a discussion of the basic structure and framework of the following branches of higher mathematics: foundations of logic, higher algebra and algebraic theories, theory of groups, synthetic and analytic projective geometries, differential geometry, N-dimensional geometry, topology, vector analysis, and calculus of variations.

Credit: 2 semester-hours

Mathematics 601. Workshop: Current Problems in the Mathematics Field

This course is conducted as a workshop for the solution of such actual problems in the teaching of mathematics as: courses in mathematics for the general and for the specializing student; integration of mathematics with other courses; revision of subject-matter in particular fields, such as in plane geometry; and research problems in specific units of work. The class meets for conferences, reports, and lectures. Individual conferences between the instructor or consultant and each individual member of the class are held by appointment.

Credit: 3 semester-hours

SENIOR-GRADUATE COURSES

For more complete descriptions of these courses see the undergraduate catalog.

MATHEMATICS 401. The Teaching of Mathematics in Secondary Schools

The student studies the methods of teaching the different units of work in the junior and senior high school. He accompanies this study by observing in the College High School the ways in which these methods are put into practice.

Credit: 3 semester-hours

MATHEMATICS 402. Applications of Mathematics

The student is taught how to use and adjust those modern instruments of precision which can be used to motivate the teaching of mathematics in the junior and senior high school. Included among these are the slide rule, transit, sextant, planimeter, plane table, solar

telescope, and astronomical telescope with equatorial mountings. Such early instruments as the astrolabe, hypsometer, baculum, and optical square are also considered.

Credit: 4 semester-hours

MATHEMATICS 404. Readings and Lectures in Mathematics

Lectures are given upon advanced topics in mathematics and on those phases of mathematics which are finding new applications, especially as they are related to the secondary field.

Credit: 2 semester-hours

MATHEMATICS 405. The History of Mathematics

A cultural background in the field of elementary mathematics is furnished by this course. Emphasis is placed on the history of the development of the number systems of elementary mathematics, computational devices, mathematical symbolism, space concepts, and simple logical processes.

Credit: 2 semester-hours

MATHEMATICS 406. Solid Analytic Geometry

A review and extension of the theory of determinants, a study of lines and planes in space, of space coordinates, transformation of coordinates, loci in space, the sphere, and of quadric surfaces are considered in this course. The study of the general quadratic equation in three variables, invariance under motion, and the classification of numerical equations completes the course.

Credit: 2 semester-hours

MATHEMATICS 407. Advanced Calculus

A study of continuity, the theory of limits, the generalized theorem of the mean, and its extension to series with a remainder term is made in this course.

Credit: 2 semester-hours

MATHEMATICS 408. An Introduction to Elementary Mathematical Statistics

This first course covers the usual topics in statistics using calculus as a major tool in the derivation of formulæ.

MATHEMATICS 410. Mathematics of Finance

This course introduces the student to the elementary theory of simple and compound interest and leads to the solution of practical problems in annuities, sinking funds, amortization, depreciation, stocks and bonds, installment buying, and building and loan associations.

Credit: 2 semester-hours

MATHEMATICS 411. Field Mathematics

In this course the student learns how to make a map using the alidade and plane table and how to find heights and inaccessible distances by scale drawings. Simple devices for estimating heights and distances are taught. The use of the surveying transit is explained as well as the use of simple devices, easily made, such as the hypsometer and geometric square. A knowledge of the elementary processes in arithmetic is sufficient background for this course. This course may not be taken for credit by a student who has received credit for Mathematics 402.

DEPARTMENT OF SCIENCE

The teacher of secondary school science is faced constantly with the problem of maintaining his professional competence with respect to recent advances in the fields of science and science education.

The past two decades have brought forth an astonishing array of new discoveries in biology, chemistry, physics, and other branches of science. Entirely new scientific points of view have to be considered by a teacher who wishes to keep his classroom practices up to date with the most recent findings as reported in current newspapers, magazines, and books.

The unusual growth of enrollment in secondary schools has brought the science teacher numerous difficult problems of science education which require a more scholarly background than has been necessary in previous decades. It is clear that the demands to be made upon the science teacher in the near future will greatly exceed those of any previous decade. A thorough knowledge of science and secondary education is necessary to professional success and promotion.

Other factors operate to multiply the problems of high school science teachers. The rapid growth of work in science in elementary schools and the extraordinary growth of junior high school science preparation foreshadow a fundamental reorganization of the senior high school science program. This work is now well under way in many sections of the country. The courses offered here are designed to help the science teacher meet these changing needs.

Prior to matriculation in the Science Department for the Master of Arts degree the student should complete a subject matter background of thirty semester-hours of college science distributed in the areas of biology, chemistry, and physics. Deficiencies must be made up prior to the conferment of the A. M. degree. A minimum of eighteen semester-hours of graduate credit work in science is required. Science 401 and Science 404 will not be accepted toward meeting this eighteen semester-hour departmental requirement. The student's work program is prepared in cooperation with the science adviser. Any changes in the student's work program are made only with the written approval of the science adviser.

COURSE REQUIREMENTS FOR THE A. M. DEGREE IN SCIENCE

I. Integration Requirements

Each student must take Integration 503, Methods and Instruments of Research, and four additional semester-hours in Integration courses.

II. Science Requirements

A. The candidate must complete three four semester-hour courses from among the following:

Biology 402, 407, 408, 409, 509 Chemistry 405, 406, 407, 408, 411, 412, 508, 509 Physics 402, 405, 406, 407, 408, 409, 411, 510 Science 405, 410

12 semester-hours

B. The candidate may elect three to four semester-hours from among the following:

Biology 501, Chemistry 501, Science 401D

C. The candidate may elect up to six semester-hours from among the following:

Biology 412, 413, 414, 508 Chemistry 413 Physics 513 Science 411, 412, 413, 414, 415, 416

Minimum for B and C-6 semester-hours

D. The candidate must take Science 505, Science Seminar for Junior and Senior High Schools.

2 semester-hours

E. With the consent of his adviser, the candidate may elect from among Science courses, Integration courses, or other courses on the 400-500 level.

Maximum possible for E-6 semester-hours

BIOLOGY

GRADUATE COURSES

BIOLOGY 501. The Teaching of Biology in Secondary Schools

This is a seminar and research course designed to give opportunity for study of the best methods and practices being used in the teaching of secondary school biology. Major topics of discussion are: aims of secondary school biology, course content, functions of textbooks, testing, laboratory exercises and demonstrations, and the collection and use of suitable and available laboratory materials. A study is made of recent research studies in the field of biology teaching.

Prerequisite: 16 semester-hours of work in biology

Credit: 3 semester-hours

BIOLOGY 508. Social Applications of Biology

This field-study course offers to teachers of science an opportunity to gain first-hand knowledge of the uses made of biological principles in industry and in modern laboratories. Field trips are designed to cover such varied interests as public health and hospital routine laboratories, medical botanical research laboratories, and the inspection of model industries developing biological products.

Prerequisite: 12 semester-hours of work in biology

Credit: 4 semester-hours

BIOLOGY 509. Field Studies of Flowering Plants

The emphasis of this course is placed upon the methods of identification of higher plants and the ecological factors affecting the growth and development of these plants. Plants in their winter conditions are considered first. As the season progresses, the emphasis changes from the identification of woody to herbaceous forms. Plant communities of various types are observed, and the factors influencing their development are discussed. Field trips are taken to such typical habitats as the Pine Barrens, Troy Meadows, Raritan, and others. The preparation of herbaria is stressed, and techniques for making leaf and twig collections are demonstrated.

Prerequisite: General botany

BIOLOGY 402. Mammalian Anatomy and Histology

A study is made of the gross structure of a typical mammal and of the structural peculiarities of its various tissues. This course prepares the student for the study of human physiology.

Prerequisite: 8 semester-hours of work in zoology

Credit: 4 semester-hours

BIOLOGY 407. Comparative Embryology

A study is made of the stages in development and factors influencing the development of different types, particularly the vertebrates. Students in this course follow carefully the development of the chick through the earlier stages.

Prerequisite: 8 semester-hours of work in zoology

Credit: 4 semester-hours

BIOLOGY 408. Biological Technique

This course is designed to furnish the prospective teacher of biology with the technical details necessary to enable him as a secondary school teacher to handle successfully biological materials and experiments and demonstrations in which these materials are employed.

Prerequisites: 8 semester-hours of work in zoology and 4 semester-hours of work in botany

Credit: 4 semester-hours

BIOLOGY 409. Human Physiology

A study is made of normal and abnormal physiology based on previous study of mammalian anatomy. In addition to an analysis of the part played by organs and tissues in carrying out the essential functions of the body, special attention is given to problems of hygiene and sanitation.

Prerequisite: A course in vertebrate anatomy or Biology 402

SCIENCE

BIOLOGY 412. Genetics from Mendel to Lysenko

This course considers the scientific basis of the gene concept and its support in experiment from Mendel's work to the present allegations of the Lysenko school. Documents of some of the milestones in the history of the science are studied, and the adherence to scientific method is carefully noted. The wide uses of the science in plant and animal improvement and the discoveries related to man's heredity make an integral part of the study. The course helps the teacher of biology or social studies to discriminate between what is scientifically known and what is political philosophy in genetics. Laboratory exercises supplement lectures and discussion.

Prerequisite: A course in college biology

Credit: 2 semester-hours

BIOLOGY 413. Economic Botany

The discussion of the importance of plants and plant life to the world in general and to man in particular is the principal aim of this course. The economic importance of bacteria, fungi, and other lower plants is considered as well as that of the seed plants. The student should have a knowledge of general botany for an understanding of this course.

Prerequisite: One year of general botany

Credit: 2 semester-hours

BIOLOGY 414. Field Ornithology

New Jersey is one of the best areas in the East for the study of bird life. On the Montclair campus, alone, over 130 species have been seen. This course deals primarily with the identification and natural history of birds. A variety of habitats receive attention so that one can become acquainted personally with the habits and associations of this unusually well adapted vertebrate type. In addition, analysis is made of the place of birds in the lives of humans, the migration story, and methods of attracting and protecting birds.

Prerequisite: A year of biology or the equivalent

CHEMISTRY

GRADUATE COURSES

CHEMISTRY 501. The Teaching of Chemistry in Secondary Schools

This course satisfies the requirements in the teaching of chemistry for the limited secondary certificate. A study is made of the objectives, recent trends, methods of presentation, courses of study, lesson planning, instructional aids, and subject matter of high school chemistry.

Prerequisite: 16 semester-hours in chemistry

Credit: 3 semester-hours

CHEMISTRY 508. Advanced Organic Chemistry—Biochemistry

In this course a study is made of the composition of living organisms, their nutritional requirements, their mechanism for promoting and regulating chemical action, and their metabolism of foods. A laboratory study is made of the components of foods, enzyme action, isolation of proteins, etc., blood and urine analysis.

Prerequisites: Chemistry 405 and 406, organic chemistry

Credit: 4 semester-hours

CHEMISTRY 509. Advanced Inorganic Chemistry

This course offers opportunity for intensive and systematic study of the elements in the light of the periodic classification. Selected theories and principles of inorganic chemistry and some of their applications are studied in detail. A study is made of compounds. Directed use of chemical literature is an important part of this course. Individual experimental work in the laboratory consists chiefly of preparation and purification of inorganic compounds and testing for impurities.

Prerequisite: A course in quantitative analysis

Credit: 4 semester-hours

CHEMISTRY 510. Food Inspection and Analysis

A study is made of the composition of commercial food products, the laws governing purity and marketing of foods, methods of analysis of foods and cosmetics, and the judging of foods for quality.

Prerequisites: Organic chemistry and quantitative analysis

SENIOR-GRADUATE COURSES

CHEMISTRY 405. Organic Chemistry, Part I

The course covers the chemistry of carbon compounds and gives increased facility and experience in manipulating complicated chemical apparatus. It treats of the role of chemistry in life processes, including the synthesis and adaptation of carbon compounds in industry, in medicine, and in daily living. The first semester's work covers the chemistry of simple chain compounds and includes fats and carbohydrates.

Prerequisites: Chemistry 101 and 102, general college chemistry

Credit: 4 semester-hours

CHEMISTRY 406. Organic Chemistry, Part II

The work of this course covers the chemistry of multiple functional chain compounds, the ring compounds, vitamins, hormones, and the application of these compounds in industry, in foods, and in medicine.

Prerequisites: CHEMISTRY 101 and 102, general college chemistry

Credit: 4 semester-hours

CHEMISTRY 407. Advanced Quantitative Analysis

This course is adapted to the needs and preparation of students. The student, after consultation with the instructor, may select analyses from the following: general or special types of oxidation-reduction; gravimetric methods; colorimetric methods; use of organic reagents in analyses; electrometric titrations; conductimetric titration; spectrographic methods of analysis; electrodeposition of metals; and special methods of analysis.

Prerequisites: General college physics and one semester of quantitative analysis, or special permission of the instructor

Credit: 4 semester-hours

CHEMISTRY 408A. Industrial Chemistry, Part I

The purpose of this course is to enable science teachers to understand the type of chemical industries in the State of New Jersey and the nature of their problems. A survey is made by lectures, reports, and trips to plants of the chemical industries in the State. This section of the course stresses the importance and the characteristics of chemical industries, the various unit operations used by the industries

to carry out chemical reactions, the controls used to insure quality, organization for research, and the type of workers employed.

Prerequisites: General and organic chemistry, or special permission of the instructor

Credit: 2 semester-hours

CHEMISTRY 408B. Industrial Chemistry, Part II

This course is a study of the chemical industries of the metropolitan area utilizing the methods outlined in Chemistry 408A. Also, a study is made of the economics of chemical industry, chemistry and industry in general, and the effects of chemical discoveries upon living conditions.

Prerequisites: General and organic chemistry, or special permission of the instructor

Credit: 2 semester-hours

CHEMISTRY 411. Physical Chemistry, Part I

This course, the first half of a year's work in physical chemistry, deals with gases, liquids, crystals, physical properties and electrolytes, colloids, thermochemistry, and homogeneous and heterogeneous equilibria.

Prerequisites: Chemistry 101 and 102, general college chemistry, Chemistry 202, analytical chemistry, and Physics 101 and 102, general college physics

Credit: 4 semester-hours

CHEMISTRY 412. Physical Chemistry, Part II

This course deals with electrical conductance, electrolytic equilibrium, electromotive force, electrolysis, polarization, chemical kinetics, photo-chemical reactions, atomic structure, molecular structure, and radioactivity.

Prerequisites: Chemistry 101 and 102, general college chemistry, Chemistry 202, analytical chemistry, and Physics 101 and 102, general college physics

Credit: 4 semester-hours

CHEMISTRY 413. Atomic Structure and Atomic Energy

This is a lecture course designed to familiarize the student with a modern conception of the structure of matter and to acquaint him with some significant aspects of atomic energy. Some of the topics studied include the following: discoveries leading to knowledge of the struc-

ture of the atom; isotopes; nuclear fission; nuclear reactions; chemical versus atomic explosions; the chain-reacting pile; production of plutonium; detection and measurement of nuclear radiation and incendiary effects of atomic explosions; atomic energy for peace-time uses; radioactive isotopes in agricultural, biological, and chemical research; and availability of materials for atomic energy.

Prerequisites: General college chemistry and general college physics, or special permission of the instructor

Credit: 2 semester-hours

PHYSICS

GRADUATE COURSES

PHYSICS 510. Advanced Problems in Photography

This course is intended to meet the needs of the camera club teacher and the hobbyist. The course includes negative and positive alterations, toning, printing processes, studio portraits, color photography, and photomicrography. The student is expected to submit prints of exhibition quality for public showing.

Prerequisites: General college physics, general college chemistry, and a first course in photography

Credit: 4 semester-hours

Physics 512. Modern Physics

This course is a survey of recent experimental research in physics and of the newer theories concerning nuclear physics and electricity. Such topics as atomic spectra, radioactivity, artificial transmutation of the elements, and cosmic rays are discussed.

Prerequisites: General college physics, general college chemistry, and a course in electrical measurements

Credit: 4 semester-hours

Physics 513. Nuclear Radiation

A study of the nature of radiations is made. Particular attention is made to radiation measurement technique. The course is concluded with a study of health physics as related to radiation dosages and their effects. Some attention is paid to disposal of radioactive wastes, radiation protection, and safety precautions.

Prerequisites: General college physics, general college chemistry, and a course in electrical measurements

SENIOR-GRADUATE COURSES

Physics 402. Advanced Electricity

The most important aims and purposes of the course are as follows: (1) to provide a substantial background of training in the fundamental laws and principles governing the generation and use of electricity; (2) to develop skill in manipulating laboratory and demonstration apparatus; and (3) to learn the basic principles of alternating current circuits.

Prerequisites: Physics 101 and 102 and Chemistry 101 and 102

Credit: 4 semester-hours

PHYSICS 405. Light and Optical Instruments

Topics included for study in the classroom and laboratory are: the propagation of light; emission and absorption of radiant energy; reflection, refraction, polarization; spectrum analysis; photometric measurements; photoelectric cells; measurement of high temperatures; characteristics of illumination, modern illuminants; and industrial and domestic uses of light.

Prerequisites: General college physics and a course in electrical measurements

Credit: 4 semester-hours

Physics 406. Astronomy

The course consists of a study of the fundamental principles of the science of astronomy. Such topics as the following are considered: motions of the earth; time; the moon; law of gravitation; the planets; comets; meteors; the sun; evolution of the solar system; the constellations; distances and motions of the stars; spectrum analysis; and telescopic observations.

Prerequisites: General college physics and college chemistry

Credit: 4 semester-hours

PHYSICS 407A. Aviation, Part I

This course deals with the historical development of aviation, air traffic rules, airworthiness regulations, pilot certification, types of aircrafts, aircraft structures, principles of aerodynamics, lift, drag, stability, motions of an airplane, piloting, motorless flight, and aircraft engines. Flight experience is made available as a part of this course.

Prerequisite: General college physics

PHYSICS 407B. Aviation, Part II

This course continues the study of the topics considered in Physics 407A and also develops an understanding of power performance, propellers, engine instruments, and flight instruments. Flight experience is made available as a part of this course.

Prerequisite: General college physics

Credit: 2 semester-hours

Physics 408. Advanced Aviation

This course consists of the study of navigation; meteorology as applied to flight operations; radio communications; flight and navigational radio aids; instrument flights; jet, turbojet, and rocket flight; and recent advancement in aviation.

Prerequisite: Physics 407

Credit: 4 semester-hours

Physics 409. Introduction to Radio Communication

This course deals with direct and alternating current circuits; construction and operation of detectors; characteristics of audio and radio frequency amplifiers; vacuum tubes; and comparisons of amplitude modulated and frequency modulated transmission and reception.

Prerequisites: General college physics and a course in electrical measurements

Credit: 4 semester-hours

Physics 411. Photography

This course consists of laboratory work and field work supplemented by lectures and demonstrations. Emphasis is placed on physical principles in the construction of cameras, projection printers, tanks, and filters. Special attention is given to chemical principles in the development of films and paper, toning, intensification, and reduction.

Prerequisites: General physics and general chemistry or permission of the instructor

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SCIENCE

GRADUATE COURSES

Science 505. Science Seminar for Junior and Senior High Schools

This course is designed to afford opportunity for graduate students in science, supervisors, and science teachers: (1) to investigate research in science education; (2) to organize science experiences and science information with teaching materials for the public schools. Each member of the group selects a project. This project must be presented to the science faculty and graduate students for evaluation.

Prerequisite: Certification to teach science or matriculation for the A. M. degree in science

Credit: 2 semester-hours

SENIOR-GRADUATE COURSES

Science 401D. The Teaching of Aviation in Secondary Schools

This course covers the study of State aviation programs, texts, bulletins, free material for school use, demonstration equipment, tests, working models, visual aids, and references needed to teach aerodynamics, aircraft engines, meteorology, navigation, and aircraft communication in high schools. Field trips to airports and aviation industries are included.

Credit: 2 semester-hours

Science 404. Problems in the Teaching of Science

When a student has completed the assignment in student-teaching in a public high school in the State of New Jersey and has accumulated some experience with the problems of high school science instruction, he returns to the college campus for an intensive study of a limited number of problems in a single field of science.

Prerequisites: See the undergraduate bulletin for required courses in biology, chemistry, and physics

Credit: 2 semester-hours

Science 405. Field and Laboratory Studies in Science

This integrated course is designed to show the relationship in the geological rock formations, the types of soil, water patterns, plant communities, and animal inhabitants in northern New Jersey, and the effects on human occupations. The field trips are for the purpose of gathering data and materials for intensive work in the labora-

tory. The experiments are designed to give the student acquaintance with the science of common but possibly unstudied features of the landscape; e. g., soils are reproduced in profile and examined microscopically, physically, and chemically; water from a variety of sources is tested for biological and chemical impurities; the census of plant and animal inhabitants of typical areas is associated with relevant factors in the environment. Discussions precede and follow the field and laboratory work to establish the probable history of the area and to suggest the probable trend, whether advancing or retrogressing, of its development. Stress is placed on the kinds of human control in specific communities which would best serve their progress.

Students are asked to submit an analysis of the geological and biological features of some known community, based on the skills and principles learned. Some other objectives of the course include an understanding of the organization of school museums for learning purposes, the making of ecological maps and illustrating them with photographs and diagrams, and the techniques of ecological field trips. Two instructors, a chemist and a biologist, collaborate in giving this

course.

Prerequisite: Proficiency in biology and chemistry

Credit: 4 semester-hours

Science 410. Junior High School Science Demonstrations

This course covers the methods of experimental instruction in grades seven, eight, and nine. A detailed study is made of about three hundred demonstrations.

Prerequisites: General college chemistry, college physics, and a course in general biology

Credit: 4 semester-hours

Science 411. Problems in Field Studies in Science

In this course each student selects a phase of field science in which he does advanced research under the guidance of the instructor. Plant ecology, bird-life, pond life, fungi, tree diseases, and insect life are a few of the areas from which the student may choose.

Prerequisites: Science 405, Field and Laboratory Studies in Science, or its equivalent plus at least 12 points in biology

SCIENCE

Science 412. Field Studies in Science: Biological

Extensive instruction in the identification and natural history of fauna and flora is given in this course. Students examine the ecology of plant and animal communities (terrestrial and aquatic) and relate such communities with man's use of natural resources. The relation of field activities to present school curricula is considered. No previous science courses are required.

Credit: 2 semester-hours

Science 413. Field Studies in Science: Physical

Emphasis in this course is given to local and New Jersey geology, minerals, soils, and waters, with emphasis on the chemical and physical aspects of soil and water. Field trips are taken through the Kittatinny Mountains and to the Delaware Water Gap.

Credit: 2 semester-hours

Science 414. Conservation of Plants and Animals

The social, economic, and ecological implications of plant and animal conservation are considered together in this course. Discussion periods are interspersed with field trips to forests and wildlife management areas. Co-operating experts from State and Federal agencies bring special contributions in their fields. Visual aids are used extensively.

Credit: 2 semester-hours

Science 415. Conservation of Soil and Water

The social, economic, and ecological implications of soil and water conservation are considered together in this course. Discussion periods are interspersed with field trips to selected areas. Outside experts bring special contributions in their fields. Visual aids are used extensively.

Credit: 2 semester-hours

Science 416. Problems in Conservation

In this course, a student or a group of students selects a phase of conservation in which he or the group does original research, either at the School of Conservation or within New Jersey. The research may be done any time during the summer with the approval of the instructor. This course is intended primarily to encourage individ-

uals or groups from institutions of higher learning in New Jersey to use the School of Conservation as a base for research in conservation. Enrollment is limited and subject to advanced approval. Fees are determined by the number of hours of credit allowed and the number of days or weeks spent in research.

Credit: To be determined by length of stay and nature of problem

Science 417. Science Problems in Conservation

This course is designed for students who already have a background in science and who wish to organize units of instruction dealing with conservation problems in their own immediate environment. By utilizing experts, the rich environment of the camp, and the library resources each student can prepare materials dealing with the relation between science and conservation, suitable for use with pupils in the schools of New Jersey.

Credit: 2 semester-hours

Science 418. Three Centuries of Science Progress

This course includes a study of fundamental world changes that have resulted in the past three hundred years from scientific discoveries. Topics considered are the following: a background of the beliefs and practices of the age; the processes of thought which produced skepticism; the experiments devised to disprove ruling opinions; the new concepts arising from fresh evidence; and the social, economic, and philosophic adjustments following the discoveries. Stress is given to the nature of scientific inquiry, its cumulative nature, its desire for freedom, and how to judge the probable fruitfulness of a research problem. The role which the man of science occupies in the world today is contrasted with his counterpart in earlier centuries. Class demonstrations of historical experiments, readings in the original literature, and lectures and discussions are employed by the three or more science teachers of the course.

DEPARTMENT OF SOCIAL STUDIES

The teacher of social studies works in a field the boundaries of which are constantly changing and expanding. The necessity for constant study, especially with regard to the contemporary social situation and its problems, presses upon every secondary school teacher of the social studies. The Social Studies Department at Montclair intends to provide for such teachers courses of an advanced character which will help to keep them abreast of the changes in a changing world. It also will provide advanced courses for those teachers who wish to increase their preparedness in specialized secondary school subjects. Finally, it aims to provide for the teacher-in-service an opportunity for keeping informed concerning the changing techniques and problems of teaching the social studies. Selections from advanced courses of the sort just described lead to the Master's degree in the social studies.

In order to qualify for the Master's degree in social studies, candidates will either prepare a thesis or pass an oral examination based upon a selected field of research.

REQUIREMENTS IN THE SOCIAL STUDIES DEPARTMENT

In general, a candidate must offer thirty-two hours of graduate credit, at least eighteen of which must be in the field of Social Studies, six in the field of Integration, and six or eight (depending upon the number of social studies credits required) elective credits in fields closely related to the social studies. The following are the more specific requirements:

- I. All candidates must take a seminar course, either Social Studies 502 or Social Studies 518. A candidate may offer both these seminars since the subject-matter content, aside from the instructions in research, is different in both courses.
- II. The remaining social studies courses should represent a diversified choice from among the following fields:

Ancient and Medieval History
Social Studies 421, 422, 423, 425, 426, 427, 473

Modern European History
Social Studies 414, 420, 441, 448, 457, 458, 493, 506

United States History
Social Studies 408, 413, 419, 438, 447, 471, 474, 475, 480

The Americas

Social Studies 415, 417, 435A, 435B, 440A, 440B, 453A, 453B

International Affairs

Social Studies 412, 434, 442, 451

Economics

Social Studies 446, 450A, 450B, 456, 517, 522, 523, 524

Sociology

Social Studies 429, 439, 443, 444, 455, 476, 477, 479, 494

Political Science

Social Studies 402A, 402B, 407, 430, 433, 437, 515

Philosophy

Social Studies 404, 470, 478

Educational Techniques

Social Studies 401, 472

Credits may also be chosen to the amount of six from the offerings in Field Studies, China Institute, Workshop in Citizenship Education, and United Nations Institute.

III. All candidates must take the course, Integration 503— Methods and Instruments of Research, and four elective credits chosen preferably from the following:

Integration 500B, 504A, 505, 550, 440

IV. Elective credits in fields other than the social studies should be chosen from among the following:

Integration 408, 410

English 402, 404, 432, 438, 442A, 442B, 447, 450

Business Education 409, 412, 407A, 407B

Geography 406, 408A, 408B, 409, 410, 411, 412, 413, 414A, 414B, 416, 418, 419, 420, 503, 504, 509.

V. Master's Thesis or Research Paper

All candidates are required to complete either a Master's thesis or a Master's essay on a question or problem which has been chosen by the candidate for his specialization. The candidate is given an oral examination on the paper before a seminar of members of the Social Studies Department. Complete directions for this requirement may be obtained from the head of the department.

In the case of candidates offering undergraduate majors from institutions other than Montclair, it may be necessary to make more specific requirements with respect to choices among social studies and elective credits than is indicated above in order to fill gaps which may exist in the undergraduate major.

GRADUATE COURSES

SOCIAL STUDIES 502. The Origin and Development of the American Constitution

This course is an intensive study of the origin and framing of the Constitution of the United States. It aims to search out the roots and influences that determined our basic political institutions. The seminar method is employed and attention is given to the techniques of historical research and historical writing.

Credit: 2 semester-hours

SOCIAL STUDIES 506. The British Empire from 1783

This course deals with the evolution of the British Empire from the period of the old Colonial system to the present British Commonwealth of Nations. The rise of dominion government, the forces of anti-imperialism, and the various solutions suggested from the improvement of imperial relations are stressed.

Credit: 2 semester-hours

Social Studies 515. History of Political Thought

The major theories of representative political philosophers concerning the nature, functions, organization and sovereignty of the state are studied in this course. Among those discussed are: Plato, Aristotle, Cicero, Thomas Aquinas, Machiavelli, Luther, Calvin, Bodin, Hobbes, Locke, Spinoza, Montesquieu, Rousseau, Hume, Bentham, J. S. Mill, Burke, Hegel, Marx.

Credit: 2 semester-hours

Social Studies 517. Money and Banking

An opportunity is provided for an analysis of the monetary and banking principles and practices basic to modern economic organization. Consideration is given to the various theories of money, the relation of money to prices, banking systems and their operation, and the nature and significance of credit. Special attention is directed to an examination of the functioning of the Federal Reserve System in relation to the gold standard, a managed currency, stability, inflation and deflation.

Social Studies 518. Recent Trends in American History (1918 to the present)

Without attempting to reach final conclusions, this course analyzes the major problems which have influenced American life since the First World War. The new position of the nation in world affairs, the modifications of the old economic order, the progress of social and political change are all surveyed. While the treatment is historical, it is intended to present materials which are serviceable in teaching the Problems of American Democracy.

Credit: 2 semester-hours

SOCIAL STUDIES 522. The Development of Economic Institutions and Ideas

This course deals with the changing principles, institutions and ideas which determine the character of economic society. The doctrines of the more important schools of economic thought such as the Classical, Historical, and Institutional groups are emphasized, and the teachings of the Mercantilists, Physiocrats, Adam Smith, Malthus, Ricardo, Marx, Henry George, Veblen, Hobson, Commons, Keynes, and others are examined in relation to the important problems of money, credit, prices, business cycles, foreign and domestic commerce, property, wages, the nature of wealth and value, and economic planning.

Credit: 2 semester-hours

Social Studies 523. The Economics of the Business Cycle

The purpose of this course is to consider the nature of business cycles and their impact on the national economy, to survey business cycle theories, and to analyze the significant proposed methods of control for the purpose of developing a desirable public program conducive to economic stability.

Credit: 2 semester-hours

SOCIAL STUDIES 524. The Economics of Public Fiscal Policy

This is a course for the mature student interested in the effect of government tax policies on the national economy. Consideration is given to the various theories of justice in taxation: the incidence and shifting of the tax burden; the constitutional aspects of government finance; fiscal policy and full employment; taxation and economic inequality; the economics of public borrowing; and management of the national debt. Particular emphasis is placed on the conflicting issues which have arisen from the increasing encroachment of public

finance on both business and the consumer due to war and recurrent depressions. Attention is also given to such special programs as the Marshall Plan and aid to underdeveloped economic areas.

Credit: 2 semester-hours

SENIOR-GRADUATE COURSES

For more complete descriptions see the undergraduate catalog.

ANCIENT AND MEDIEVAL HISTORY

SOCIAL STUDIES 421. Oriental Civilization

This course presents the important contributions to civilization and social progress made in antiquity in three great centers of the Near East: Egypt, Mesopotamia, and Crete.

Credit: 2 semester-hours

Social Studies 422. Greek Civilization

The aim of this course is to present the development of Greek civilization from the earliest period to the beginning of the Christian era.

Credit: 2 semester-hours

SOCIAL STUDIES 423. Roman Civilization

This course traces the social changes in Rome from the earliest times to the end of the Western Roman Empire. The rise and fall of the empire are discussed with relation to their importance in medieval civilization.

Credit: 2 semester-hours

Social Studies 425. Medieval Civilization

This course covers the period from the decline of Rome to about 1500. It first emphasizes the blending of barbarian cultures with that of the Roman resulting in feudalism as a way of life. After that a study is made of the gradual evolution of towns, a trade and industrial economy on a broadening scale, the emergence of monarchial states, an intellectual awakening with the founding of universities, all of which leads finally to our modern system of national states.

Social Studies 426. Medieval History to 1498

In the first part a study is made of the factors contributing to the political breakdown of the imperial principle, such as the growth of Christianity, barbarization of the West, and the expansion of Islam. The second part is devoted to the developments in Western Europe after 1200, stressing political movements, medieval commerce, guilds, growth of towns, and cultural changes.

Credit: 4 semester-hours

Social Studies 427. Ancient History to 378 A.D.

The first part of this course covers the Oriental period and the Greek through the Periclean Age. The second part covers the Hellenistic period from the rise of Philip of Macedon, stressing attempts at federalism.

Credit: 4 semester-hours

SOCIAL STUDIES 473. The Arts in Western Civilization

This course is designed to show how the social, economic, political, and religious movements in Western Civilization influenced the aesthetic expression of Europe from the Golden Age of Greece to the Rise of the Industrial Revolution. Greek, Roman, Byzantine, Gothic Baroque, and Rococo art, architecture, and music are discussed and illustrated.

Credit: 2 semester-hours

MODERN EUROPEAN HISTORY

Social Studies 414. Modern England

This course deals both with the historical periods as such and with the influences of the political, economic, and social forces in the English literature of the century. The Napoleonic era, political reform, factory reform, the humanitarian movement, the Irish question, the ministries of Gladstone and Disraeli, and the interpretation of politics and literature are considered.

Credit: 2 semester-hours

Social Studies 420. European Outlook

This course is designed to provide the background for understanding Europe today. The reality of ideological struggles between free and totalitarian countries is emphasized as a main source of present-day conflict.

SOCIAL STUDIES 441. Economic History of Europe

The study of Europe from an economic point of view is particularly important in the light of present European problems and their relation to world-wide conditions. This course is a survey of the economic life and development of Europe from the emergence of the ancient civilizations to the beginning of the modern economic world.

Credit: 2 semester-hours

Social Studies 448. The British Dominions

This course deals with the role Canada, Australia, New Zealand, and South Africa are playing in present world affairs. Special emphasis is given to Canada and its dual position as an American state and a part of the British Empire.

Credit: 2 semester-hours

SOCIAL STUDIES 457. Development of Russia

Factors which have shaped the evolution of the Russian people, such as Byzantinism and the Greek Orthodox faith, the Synod, Tartar state organization, the Mir, Westernization from Peter to Lenin, Slavophilism, and dialectic materialism, are emphasized.

Credit: 2 semester-hours

SOCIAL STUDIES 458. Russia as a World Power

An analysis of Russia's relations with China, Iran, Turkey, the European continent, England and the United States is presented. Marxist world policy, as interpreted by Kautsky, Plekhanov, Jaures, Bukharin, Trotsky, Lenin, and Stalin, is described.

Credit: 2 semester-hours

Social Studies 493. Western Europe Since World War I

This course presents an outline of the rise of communism and fascism and the reaction of the western democracies to these movements. The Civil War in Spain, the Munich Pact, the failure of the League of Nations, diplomatic events of the World War II era, United Nations problems, the North Atlantic Pact, and special problems of western defense are emphasized. An evaluation of western Europe's significance for the United States is attempted.

UNITED STATES HISTORY

SOCIAL STUDIES 408. A History of New Jersey

This course is designed to assist teachers in acquiring a better knowledge of their state. A study is made of the history of New Jersey from the point of view of the social, political, economic, and cultural development of the people from the beginning of settlement to the present. Special attention is given to the geographical and industrial aspects of the state, and the place of New Jersey in the national setting.

Credit: 2 semester-hours

Social Studies 413. Economic History of the United States

The great trends and movements in agriculture, finance, commerce, manufacturing, transportation, and industrial relations are traced from their beginnings in the colonial period to their contemporary expressions in the present crisis.

Credit: 2 semester-hours

Social Studies 419. American Political Biography

This is the study of the life and influence of the leading figures in American political and social history. It is the aim here to show the relation of each of these characters to the times in which he lived and to point out how he influenced the trend of American life. The study includes such leaders as Washington, Jefferson, Hamilton, Webster, Lincoln, Cleveland, T. Roosevelt, and Wilson.

Credit: 2 semester-hours

Social Studies 438. The Literature of American History

A brief description of the material available for the study of American history is followed by class practice in finding and using the primary sources of some of the facts commonly taught in schools.

Credit: 2 semester-hours

Social Studies 447. Diplomatic History of the United States

The purpose of this course is to show how we have become gradually conscious of our world interests and responsibilities, and the important role we have come to play in international politics.

Social Studies 471. The United States Since World War I

This course surveys the major problems, economic, social, political, and international, which have marked our national development since the end of the first World War. It is intended especially for social studies seniors as a preparation for the second year of secondary school American history as provided for in the recently adopted state requirements.

Credit: 2 semester-hours

Social Studies 474. America in Transition

This course surveys rapidly the results of the Civil War and then emphasizes the major trends, economic and social, which have made modern America. It is intended as a more advanced study than that which is made in the undergraduate course. The period covered is from 1867 to around 1914.

Credit: 2 semester-hours

Social Studies 475. The History of American Thought

This course considers the influential thinking in America from the Mayflower Compact to the Marshall Plan to see how certain ideas or trends of thought have grown out of situations and have in turn helped to mould the course of our history. The student should gain an appreciation for the American contribution to world culture, and an examination is made of outworn stereotypes which exist today. The writings and discourses of important American thinkers are considered including Mather, Paine, Jefferson, Emerson, Thoreau, and Veblen.

Credit: 2 semester-hours

Social Studies 480. Social History of the United States

This course presents a study of the social and cultural aspects of American history. As such, it supplements but does not take the place of economic and political history. The course considers population movements and growth, rural and urban social problems, status of women, family life, utopian ventures, mass media of communication, amusements and recreation, and human rights.

THE AMERICAS

SOCIAL STUDIES 415. Latin-American Relations of the United States

This course aims to provide the information necessary to a clear understanding and accurate appreciation of the political, economic, and social relations that have developed between us and our Latin-American neighbors.

Credit: 2 semester-hours

Social Studies 417. American Archaeology

This course shows that the New World of the early discoverers was in reality far from new. The course discusses the prehistoric pueblo dwellers and early mound builders. The truly remarkable civilizations of the Mayas and the Incas are examined and compared with that of the Aztecs. North American tribes of Indians are also studied in order to evaluate their significant cultures.

Credit: 2 semester-hours

*Social Studies 435A. The Americas: A Contemporary Political, Economic, and Cultural Survey, Part I

This course deals specifically with the relations of the United States and the Caribbean countries. Attention is given to the dependencies of the United States in this region as well as to the independent republics. Twentieth century political, economic, and cultural developments of this region are stressed in light of the inter-American system.

Credit: 2 semester-hours

*Social Studies 435B. The Americas: A Contemporary Political, Economic, and Cultural Survey, Part II

This course deals specifically with the twentieth century political, economic, and cultural life of the South American nations. The role which the South American states play in world affairs is stressed. Attention is given to post-World War II developments and adjustments in South America.

Credit: 2 semester-hours

*Social Studies 440A and 440B. The Development of Central and South America as Colonies and Nations

The first part of this course surveys the period of exploration and settlement in the colonies of South and Central America. The second

^{*} Note: Courses 435A, 435B, 440A, and 440B are independent courses; none is prerequisite for another.

part studies the experiences of the various Latin-American nations under different forms of government.

Credit: 2 semester-hours each

Social Studies 453A. The Development of Mexico and the Caribbean States

It is intended to show in this course the historical development of Mexico and the Caribbean nations in terms of their political, cultural, social, and economic progress in order to develop understandings and appreciations for their cultures and present-day problems. The relationships of their problems to those of the other American nations are stressed and placed in proper perspective.

Credit: 2 semester-hours

Social Studies 453B. The Development of Canada

This course is devoted to the study of the historical background, geographical environment, governmental organization, economic behavior, and social conditions of the northern neighbor of the United States. Its professional objective is to provide the understanding and appreciation necessary to the student and teacher who may follow and interpret the growth, internal and external, of the Dominion of Canada and of its relation to the United States as well as to the British Commonwealth of Nations.

Credit: 2 semester-hours

INTERNATIONAL AFFAIRS

Social Studies 412. International Government

The attempts of the international community of states to express itself in a formal world organization are the subject of this course. The agencies which have been established to deal with international legislative, executive, administrative, and judicial problems are studied.

Credit: 3 semester-hours

Social Studies 434. Contemporary World Affairs

This course is devoted to a survey of the leading diplomatic, economic, political, and military issues before the world today. The backgrounds from which these international affairs have evolved are reviewed.

Social Studies 442. The Far East

A study is made of the economic, social and cultural situation of the Far East, with particular emphasis on the historical background of China and Japan, and on our relations with the Philippines.

Credit: 2 semester-hours

SOCIAL STUDIES 451. The Middle East

This course is a survey of Indian and Moslem civilizations. Postwar planning for the region from the Near East through Persia, India, Burma, Thailand, and Malaya to the Netherland East Indies is discussed.

Credit: 2 semester-hours

ECONOMICS

Social Studies 446. Current Problems in Economics and Government

This course is designed to analyze the relationship of economics to government. The causes and results of governmental activities are discussed in the light of their economic significance and their bearing on public welfare.

Credit: 2 semester-hours

SOCIAL STUDIES 450A and 450B. Modern Economic Problems and Policies

The purpose of this course is to contribute to the general need for increased knowledge in the area of economic relationship, using the problem approach method of analysis. 450A begins with a brief recapitulation of the overall functioning of the economic system, after which the class proceeds to a detailed study of our broader economic problems and the public policies relating to them. Specifically, the problems are those relating to population and natural resources, the economic functions of government, the measurement of economic activity, monetary stability, basic banking problems, business cycles, marketing trends, economic inequality, and social security. 450B considers those problems associated with the world economy, international trade and exchange, monopoly and its regulations, the problems concerned with the control of public utilities, emergency price regulation and economic stabilization, labor problems, the problems of public finance, the public debt and fiscal policy, and, finally, the nature of comparative economic systems and their relations with each other.

Social Studies 456. International Economic Relations

The purpose of this course is to study the significance of international trade and exchange to the economic life of our nation and to the world economy.

Credit: 2 semester-hours

SOCIOLOGY

Social Studies 429. Present-Day Social Problems

Beginning with a survey of levels of living in the United States and their relation to the distribution of wealth and income, this course proceeds with a study of poverty and crime, their sources, treatment, and prevention.

Credit: 2 semester-hours

Social Studies 439. The Family and Its Problems

This course gives a history of the family, our American family patterns, the effects of social change, marital patterns of interaction, social roles, sources of conflicts and frustration, divorce and desertion, special problems in family life, economics of children and the home, social legislation pertaining to family problems, marital adjustments, personality change after marriage, parent-child relationships, and personality reorientation.

Credit: 2 semester-hours

Social Studies 443. Youth and the Community

This course is a sociological study of youth in its many relations to the community. Special attention is given to problems which arise in the relationship of youth and the community; e. g., juvenile delinquency, conditions contributing to maladjustment, poorly adjusted children, and educational and social agencies active in solving youth behavior.

Credit: 2 semester-hours

Social Studies 444. The Social Bases of Human Relations

This course emphasizes the social bases of human nature and personality. Primary and secondary groups, folkways, mores, and institutions are considered.

Social Studies 455. Social Legislation

This course analyzes the social, economic, and political adjustments which have come about in our society due to technological progress.

Credit: 2 semester-hours

Social Studies 476. Personality Development and Group Relations

A study is made of personality growth through social contacts, the environmental factors found in the home and family, neighborhood, play, and school groups. Methods of measuring the place of the individual in the group, analysis of the group process, ways of bringing about better life adjustment, and integrating experiences are the subject matter of the course. Concrete cases of maladjustment to society and disintegrated personality are studied. Agencies in the community which serve youth are visited, and leadership in community group activities is recognized as part of the course requirements.

Credit: 2 semester-hours

SOCIAL STUDIES 477. Rural Sociology

During this course the student comes face to face with rural life in northern New Jersey. Social processes and problems are considered. Opportunities are provided for students to attend Grange meetings, county fairs, rural dances and parties, and to live for a day or two with a farm family.

Credit: 2 semester-hours

Social Studies 479. Education and Intercultural Relationships

Within our nation as within the world, along with common needs and interests, there exist differences between groups and individuals which act as barriers to satisfying human relationships. This course is devoted to a consideration of these barriers and of common interests and needs which exist in spite of such barriers. We study not only the existence of such conditions but also the attitudes, principles, and techniques which may make for better human relationships.

Social Studies 494. Social, Economic, and Geographic Implications of Conservation

Everyday problems of living as they are related to and affected by the wise use of our natural resources are studied in this course. The student learns about the renewable resources, soil, water, forests, and wildlife, as well as the non-renewable resources, minerals, oil, and coal. Economic, social, community, national, and individual problems are approached by giving the student first-hand experiences gained through extensive field trips in northern New Jersey. This course is of particular interest to social studies and elementary school teachers but also forms an excellent experience background for all educational fields. Methods of teaching, courses of study, and teaching units are developed.

Credit: 4 semester-hours

POLITICAL SCIENCE

Social Studies 402A and 402B. American and Comparative Government

The basic facts and principles necessary for the teaching of civics, history, and the political aspects of Problems of American Democracy are studied. The first part is devoted to American national government, including the obligations and rights of citizens, the suffrage, political parties, the changing nature of the Federal system, and the executive, administrative, legislative, and judicial systems. The second part deals with similar political phenomena in England, France, Germany, Italy, and Russia.

Credit: 2 semester-hours each

Social Studies 407. New Jersey State and Local Government

A study is made of the State Constitution; New Jersey's place in the Federal system; the rights and duties of citizens; suffrage; political parties; the legislative, the executive, and administrative systems; the courts, the law enforcement and correctional systems; revenues and expenditures; public health, educational, highway, and other services; county and municipal government; and other local political units.

Credit: 2 semester-hours

Social Studies 430. The Citizen and the State

This course is designed to help any citizen become better acquainted with the many organizations by and through which our complex society manages itself. The emphasis is placed on government and

political organizations, but the course also includes a study of the many other organizations of the community, the county, and the state that have to do with directing policy and maintaining controls. The aim of the course is to encourage intelligent appreciation and participation rather than simply to accumulate academic information. Consideration is also given to the ways in which such working knowledge can become a part of the experience of the pupils in our schools.

Credit: 2 semester-hours

Social Studies 433. American Political Thought

This course deals with contemporary trends and theories as they have emerged from social and economic conditions and as they are founded upon the bases laid down by such men as Hamilton, Madison, Washington, Jefferson, Marshall, Calhoun, Webster, Lincoln, and Wilson.

Credit: 2 semester-hours

Social Studies 437. The Political Party System in the United States

Among the topics discussed are: party organizations, the political boss, the political machine, party finances, the process of voting, election laws, primaries, conventions, platforms, presidential elections, majority rule, the development of the party system, sectional politics, the farm vote, the labor vote, and the future of party government in the United States.

Credit: 2 semester-hours

PHILOSOPHY

Social Studies 404. The Philosophy of History

It is the purpose of this course to investigate the relation of history to the other social studies and also the major attempts to find the meaning of history. A brief survey is made of the leading philosophies of history.

Credit: 2 semester-hours

Social Studies 470. History and Principles of Philosophy

This course presents a study of the history of philosophy and of the important principles contributed by outstanding philosophers from Thales to Gentile. Much of the discussion is centered on the three types of philosophic thought: naturalism, idealism, and pragmatism.

Among the philosophers considered are: Plato, Aristotle, Bacon, Spencer, Rousseau, Hegel, James, Dewey, and Gentile.

Credit: 2 semester-hours

SOCIAL STUDIES 478. Theories of Social Justice from Antiquity to
Our Time

This course is designed to show how specific ideas of social justice resulted from specific historical conditions and events. A comparison of social upheavals among the ancient Hebrews, Greeks, and Romans; the early Christians; the peasants in the Middle Ages; the religious rebels of the early Renaissance; and the revolutionaries of the modern age is to furnish background material for an understanding of present social thought. Lectures and discussions cover the social prophets of the Hebrews; Lycurgus; Cleomenes; Plato; Gracchus; Spartacus; the Essenes, the Waldensians, the Albigensians, and the Hussites; Wycliffe; John Ball; and on selected social thinkers of the last few centuries, such as Hobbes, Locke, Hume, Rousseau, the Utopians, the Socialists, and the Anarchists.

Credit: 2 semester-hours

EDUCATIONAL TECHNIQUES

Social Studies 401. The Teaching of the Social Studies in Secondary Schools

This course aims to present recent tendencies in educational method in teaching the social studies. A program is presented containing the correlation of subject-matter organization in socialized recitation, the teaching of current events, projects in citizenship, and the use of the project-problem as a method of teaching history and civics.

Credit: 3 semester-hours

Social Studies 472. Modern Social Studies Instruction and Supervision

This course is designed primarily to assist teachers and supervisors to obtain a comprehensive view of recent curriculum trends, current subject-matter tendencies, and newer practices in secondary school social studies. Topics discussed include: materials, methods, and techniques; use of audio-visual aids; courses of study and experimental problems; professional literature; and problems of the critic teacher and the supervisor.

FIELD STUDIES IN AMERICAN LIFE

Social Studies 459. New Jersey and the Metropolitan Community

This is a sequel to Social Studies 302 and consists of an entirely different series of field studies. There are eight all-day field trips and seven two-hour class periods. The course is given on Saturdays, during both semesters when possible, and is open to all regular and part-time students as an elective. The field studies in the course cover comprehensively the geography of New Jersey and the lower Hudson valley with emphasis on the conservation of natural resources. Attention is also given to the cultural pattern of the region.

Credit: 3 semester-hours

Social Studies 460. Central Eastern Region

This fifteen-day tour of Pennsylvania, Maryland, Virginia, West Virginia, North Carolina, and Tennessee covers the major points of historic interest associated with the Colonial Period, the American Revolution, and the Civil War, and the geographic features of the coastal plain, the Piedmont, the Great Valley, and the Appalachian Mountains in these states. Travel is by modern chartered motor coach, and overnight stops are made at first-class hotels. Among the places visited are: Valley Forge, Philadelphia, Baltimore, Annapolis, Washington, Arlington, Alexandria, Mt. Vernon, Fredericksburg, Richmond, Washington's birthplace at Wakefield, Lee's plantation at Stratford, Yorktown, Williamsburg, Jamestown, Raleigh, Chattanooga, Asheville, Great Smoky Mountains, Norris Dam, Jefferson's Monticello at Charlottesville, Natural Bridge, Skyline Drive in the Shenandoah National Park, Luray Caverns, Winchester, Harper's Ferry, Frederick, Gettysburg, and the Pennsylvania Dutch area around Lancaster and Ephrata.

Credit: 3 semester-hours

Social Studies 461. New England and French Canada

This field study course gives an opportunity to study by direct observation the historical and geographical features of New England and the Province of Quebec. The trip, occupying the twelve days immediately following the summer session, is made in a modern chartered motor coach with overnight stops at first-class hotels. The route covers the lower Connecticut Valley, including Hartford, Springfield, Northampton, and Deerfield; the Rhode Island cities of Providence and Newport; historic Massachusetts towns such as

Plymouth, Boston, Lexington, Concord, Salem, and Marblehead; the coast of New Hampshire and southern Maine; the White Mountains in the Mt. Washington and Franconia Notch area; the Canadian Province of Quebec, including the ancient French city of Quebec, Montmorency Falls, St. Anne de Beaupré, Montreal; the western shores of Lake Champlain, Lake George, and the Hudson River. It is an indispensable background for an understanding of Colonial and Revolutionary life and history in this region.

Credit: 3 semester-hours

Social Studies 462. Continental United States

This field study course consists of sixty-two days of directed travel, including all of July and August, and provides an opportunity for gaining an integrated view of our country as a whole. The trip is made in a modern chartered motor coach with overnight stops at first-class hotels. The route covers about 12,500 miles and visits 26 states and 6 National Parks. Among the major points of interest are Gettysburg, Natural Bridge, Blue Ridge and blue grass region, Mammoth Cave, Lincoln shrines in Kentucky and Illinois, Dodge City, Royal Gorge, Pikes Peak, Denver, Rocky Mountain National Park, Taos and other Indian Reservations, Santa Fe, Petrified Forest, Painted Desert, Grand Canyon, Bryce and Zion National Parks, Hoover Dam, Los Angeles, Hollywood, San Diego, San Capistrano and other Missions, Tia Juana, Santa Barbara, Sequoia and Yosemite National Parks, Monterey, San Francisco, Sacramento, Lake Tahoe, Reno, Donner Pass, mammoth redwood groves, Crater Lake, Columbia River Valley, Portland, Seattle, Mt. Rainier, Grand Coulee Dam, Spokane, Butte, Yellowstone National Park, Salt Lake City, pioneer trails of Wyoming, Black Hills, Chicago, Detroit, Toronto and Niagara Falls. All important geographic and historical features are studied under the instruction of members of the college faculty and local specialists. Write for detailed descriptive folder.

Credit: 10 semester-hours

Social Studies 463. The Lower South

This is a fifteen-day field study course, covering the gulf coasts of Louisiana, Mississippi, and Alabama, and both coasts of Florida. Among the topics to be observed and studied are the Acadian and Creole culture in and around New Orleans; the industrial, historical, and recreational features of Biloxi, Mobile, and Talahassee; the tobacco, citrus, and sponge-fishing industries in the neighborhood of Tampa, St. Petersburg, Lake Wales, Sarasota, and Fort Myers; the

plant and animal life of the Everglades along the Tamiami Trail; the millionaire playgrounds of Miami and Palm Beach; and the historical shrines of America's oldest city, St. Augustine. It is usually offered during the Christmas holidays.

Credit: 3 semester-hours

Social Studies 464. Southeastern Region and Gulf Coast

This is a twelve-day field study course covering the Atlantic Coast from Baltimore to Savannah and the Gulf Coast from Tallahassec to New Orleans. It surveys the economic, geographic, and historical aspects of the coastal plain, the piedmont, and the lower Mississippi Valley visiting, among other places, Richmond, Williamsburg, Charleston, Savannah, Tallahassee, Pensacola, Mobile, Biloxi, New Orleans, Baton Rouge, Natchez, Vicksburg, Jackson, Birmingham, Atlanta, Greenville, Charlotte, and Greensboro. It is offered during the Christmas holidays.

Credit: 3 semester-hours

Social Studies 465. The Border States

This is a nine-day field study course covering mainly the states which were border or frontier states during the early stages of the westward movement or border states between the North and the South during the Civil War. The route of the trip will be down the eastern shore of Delaware and Maryland to Williamsburg, up the southern shore of the James River to Appomattox and across the mountains to Natural Bridge; then down the Great Valley to Knoxville and the Norris Dam, westward to Nashville, north again to Mammoth Cave, the Lincoln Memorial, and the Blue Grass Country of Kentucky, up the Ohio River through the land of iron and steel to Pittsburgh, and finally homeward across the Appalachians by way of the Pennsylvania Turnpike.

Credit: 2 semester-hours

Social Studies 466. Puerto Rico and the Virgin Islands

This is a nine-day field study course devoted to a survey of our nearest island possessions. It includes a rather thorough exploration of San Juan and its vicinity, including the University, the rain forest and the submarine gardens, a three-day trip through the island visiting pineapple, coffee, sugar, textile, and rum producing areas, churches, homes, and historic places. One day is spent in St. Thomas, largest of the Virgin Islands. The trip to and from the islands is made by air. It is offered during the Christmas holidays.

SOCIAL STUDIES 467. Florida

This is a field-study course covering the Florida peninsula including both coasts, the Everglades, and the Lake Region. Among the places visited are ancient St. Augustine; the winter playgrounds at Palm Beach and Miami; the Tamiami Trail through the Everglades; the west coast cities of Sarasota, St. Petersburg, and Tampa; and the Lake Region in the neighborhood of Lake Wales and Orlando. The trip affords opportunity for topographical, historical, and industrial studies. It is usually given during the Easter vacation.

Credit: 2 semester-hours

Social Studies 468. New Jersey, the Lower Hudson Valley, and Eastern Pennsylvania

This field-study course covers all sections of New Jersey (north-eastern, northwestern, central, and southern), the Hudson Valley from Manhattan to Bear Mountain, and southeastern Pennsylvania from Philadelphia to Lancaster and Scranton. Among the activities and places studied are the natural resources, conservation, industries, state and national parks, historic sites and buildings, topographic features, and the manners and customs of the people of each section. There are three one-day field trips and a five-day trip by bus with overnight stops at first-class hotels as well as two days of class work at the college. This course furnishes a series of interesting experiences of especial value to teachers of the history and geography of New Jersey, New York, and Pennsylvania.

Credit: 2 semester-hours

Social Studies 469. Mexico

This field-study course aims to give a comprehensive view of contemporary Mexican life with its geographic, economic, historic, and cultural setting. Transportation to and from Mexico City is by air and in Mexico by private cars. Overnight stops and meals are at the best hotels. Places visited include Xochimilco, Acolman, Teotihucan, Fortin, Puebla, Oaxaca, Tehuantepec, Queretero, Guanajuato, Dolores Hidalgo, San Miguel de Allende, San Jose Purua, Morelia, Toluca, Taxco, and Cuernevaca. The itinerary is carefully planned to include all points of major interest and significance. Special studies may be made in the fields of geography, history, art, architecture, archaeology, sociology, economics, and other fields.

BACKGROUND STUDIES IN AMERICAN LIFE

Social Studies 492A and B. Studies in American Life—The East and the West

These courses comprise a unit designed to give the student an integrated understanding of the United States as a cultural, historic, geographic, social and political unit and, at the same time, an appreciation of the regional differences which characterize American unity in diversity. It should be useful to those who have traveled, to those who intend to travel, and to those who, although they cannot travel, wish to broaden their knowledge of our country. The geography, the history, the literature, the art, the music, the architecture, the people, the manners and customs, the flora and fauna, the economic, social, and political problems, and the significant personalities of the regions studied are discussed and illustrated with slides, films, and other audio-visual materials. Either course may be taken without the other.

The subject matter of Social Studies 492A covers New England, the Central East, the South, and the Middle West east of the Mississippi River. The subject matter of Social Studies 492B deals with the regions west of the Mississippi, i. e., the Great Plains, the Mountain States, the Southwest, the Northwest, and California.

Credit: 2 semester-hours each

INSTITUTES AND WORKSHOPS

SOCIAL STUDIES 490A. United Nations Institute

This course covers four and one-half hours per day for ten consecutive days excluding Sunday. It consists of basic lectures on factual backgrounds by the instructor, supplementary lectures by visiting lecturers from the United Nations and other organizations, discussions, workshop and library projects, demonstrations of the use of audio-visual materials, and field trips to the United Nations. Included among the subjects studied are the national state system, war and peace, world organizations (past, present, and proposed), the national armaments problem, international law, the international police proposal, pacific methods of settling international disputes, and the outlook for international co-operation.

Social Studies 490B. The United Nations and American Foreign Policy

The purpose of this course is to help provide an understanding of the United Nations in its operation as a basis for American foreign policy. In that the Charter of the United Nations forms the backbone of American cultural, economic, and military cooperation with other nations, its interpretation and the application of our aid to needy people open a wide area of disagreement within the nation. Following the principle that American foreign policy should rest upon an intelligent understanding on the part of the electorate and working within the framework of the policy of the State Board of Education with regard to controversial issues, the United Nations Institute deals with the strong as well as the weak aspects of this newly created world organization. This institute serves the needs of teachers of all grades, students of foreign policy, the public at large, as well as visitors from other lands who are here to study the ways of American democracy. It is available to students who have completed the requirements for Social Studies 490A. United Nations Institute, or the equivalent.

Credit: 3 semester-hours

Social Studies 490C. The Specialized Agencies of the United Nations

The purpose of this course is to give the student an opportunity to learn about the various activities of the specialized agencies of the United Nations. The course deals with the positive activities of the United Nations in the various areas of human welfare. Visiting lecturers from the agencies themselves and from areas of the world receiving such help are a regular part of the class work. Trips to the New York offices of these agencies and individual research make up the balance of the work for this course.

Social Studies 490A, *United Nations Institute*, or its equivalent is a prerequisite for this course.

Credit: 3 semester-hours

Social Studies 491A. Workshop in Citizenship Education, Part I

The purpose of this workshop is to present a study of what has been done in some of the many projects in citizenship education throughout the country. Special emphasis is placed on the plans and materials developed by the Citizenship Education Project now being conducted by Teachers College, Columbia University, and financed by the Carnegie Corporation. Montclair has been one of the eight teachers colleges cooperating in this project, and the College High School is now a cooperating school. Consultants are invited in as needed. Attention is given to programs and practices already in use in the schools, and advantage is taken of the state-wide project

of this past year in collecting from the schools experiences in education for character and citizenship. New means for citizenship education are sought, and methods of evaluation are reviewed. Experience in the group processes essential to democratic action is provided. It is hoped especially to include in the workshop those who have been or may be serving as training teachers for Montclair student teachers, especially in the fields of social studies and English. Principals and administrators who want to join with others in learning how to make more effective the citizenship education in the schools with which they are connected are invited to participate. Each participant in the workshop works on actual plans for carrying out such education in the school and the classroom.

Credit: 2 semester-hours

SOCIAL STUDIES 491B. Workshop in Citizenship Education, Part II

Membership in this workshop course is limited to those who have completed Social Studies 491A, and participants in this advanced workshop meet and work with the members of the Social Studies 491A workshop. On the basis of previous experience, each member of the Social Studies 491B group is expected to work out several laboratory practices or similar projects for use in the classroom or the school.

Credit: 2 semester-hours

Social Studies 499. Introduction to Chinese Culture

A number of authorities introduce first-year students to the rise, growth, and maturing of Chinese civilization, as well as to the fundamental problems of China today, including the conflict of ideologies. The course is given in twelve days. Each day there are two hours of lectures in the morning; after lunch a period of forty-five minutes is devoted to informal talks including further discussion on Chinese music, philosophy, Chinese school days, festivals, and calligraphy. Some time is also given to the singing of Chinese songs and the showing of motion pictures. During the two-hour workshop period the students prepare their projects, teaching units, and background material under the direction of faculty members.

Credit: 3 semester-hours

SOCIAL STUDIES 496A. The Chinese Society

This course is an intensive study of the formation of the Chinese people, their collective life, and the interaction of natural and human forces with the resultant social organizations from early times to the present. Particular emphasis is placed upon the development of social institutions, including the family, labor guilds, educational systems, and religious institutions, as well as their transformation and mod-

ernization under the impact of different forces from the West. There are twenty-four hours of lectures in the morning, and round-table discussion and library work in the afternoon.

Prerequisite: Social Studies 499, Introduction to Chinese Culture.

Credit: 3 semester-hours

Social Studies 496B. China: The Evolution of a Nation

This course is an intensive study of the Chinese civilization, the forces underlying the development of the national character of the Chinese people, their contacts and conflicts with other peoples and cultures from historical times to the present. Because of its voluminous material, this course does not attempt to cover the whole span of Chinese history, but it is an integrated presentation of the maturing of the Chinese people as a nation. There are twenty-four hours of lectures in the morning, and roundtable discussion and library work in the afternoon.

Prerequisite: Social Studies 499, Introduction to Chinese Culture.

Credit: 3 semester-hours

Social Studies 497. Chinese Philosophy

This course shows how the ancient philosophies, Confucianism, Taoism, Buddhism, Mohism, can be applied to the China of today and how they affect modern Chinese thought. There are twenty-four hours of lectures in the morning, and round-table discussion and library work in the afternoon.

Prerequisite: Social Studies 499, Introduction to Chinese Culture, or an equivalent course in philosophy.

Credit: 3 semester-hours

Social Studies 498. China and the Far East

This course is given in twelve days, two hours each morning being devoted to the discussion of contemporary Chinese problems and China's relations to her neighbors in the Far East; Japan, India, Korea, the Philippines, and Russia-in-Asia.

Credit: 3 semester-hours

ART 414. History of Chinese Art

For a description of this course, see page 113.

Credit: 3 semester-hours

English 459. A Survey of Great Chinese Literature For a description of this course, see page 38.

OTHER COURSES THAT MAY BE USED AS ELECTIVES

For more complete descriptions see the undergraduate catalog.

ART 406. Creative Arts Workshop

This course offers experience in painting, drawing, sculpture, ceramics, and print making for students who wish to employ the creative visual arts in the teaching of other subjects. No previous art training is required.

Credit: 2 semester-hours

ART 408. Creative Painting

This course gives the student an opportunity to use the materials of the painter for personal creative experience. Oils, water colors, and poster paints are used. The student is encouraged to work in landscape, figure, and free imaginative composition. No previous art experience is necessary.

Credit: 2 semester-hours

ART 414. History of Chinese Art

In this course the developments and distinguishing characteristics of the major arts of China are traced by specialists and are surveyed from the point of view of their historical development. An historical survey of the development of Chinese art from the dawn of civilization to the present day is made which includes the role played by foreign influences such as the spreading of Buddhism and the Chinese influence on other parts of the world. There are twenty-four hours of lectures in the morning and roundtable discussion and library work in the afternoon. During the afternoon workshop period the technique of Chinese painting is demonstrated. Although there is no prerequisite for this course, it is suggested that those who enroll should have some knowledge of art or have taken Social Studies 499—Introduction to Chinese Culture.

Credit: 3 semester-hours

ART 415. School Arts and Crafts with Native Muterials

In this course the student gains an appreciation and understanding of art expression growing out of the immediate environment as he learns to work creatively with native materials. Useful and decorative articles are made from wood, fruit pits, seeds, grasses, reeds, and native clay. The use of natural dyes for coloring is demonstrated. The construction of teaching aids using simple, native materials is also shown. Flower and plant arrangements for room and table decoration in keeping with good conservation practices are presented.

Credit: 2 semester-hours

Geography 503. Economic Geography of the United States and

A study is made of the agricultural, industrial, and commercial development of the United States and of the geographic factors that have contributed to that development.

Credit: 2 semester-hours

GEOGRAPHY 504. Economic Geography of Europe

This course constitutes a study of the economic development of the nations of Europe in relation to the environmental background and resources that have made Europe one of the world's leading continents.

Credit: 2 semester-hours

GEOGRAPHY 509. Economic Geography of Asia

This course constitutes a treatment of the economic and commercial development of the countries of Asia in relation to their natural environment.

Credit: 2 semester-hours

GEOGRAPHY 406. Geology

This course deals with the earth and its geographic, stratigraphic, and structural development throughout geologic time; the record of the evolution of life as interpreted through a study of rocks and fossils.

Credit: 2 semester-hours

Geography 408A and 408B. Political Geography

This course deals with the geographic conditions influencing the significant changes in the political divisions of the world. Emphasis is placed on geographic factors influencing racial, religious, commercial, and political adjustments between nations.

GEOGRAPHY 409. Economic Geography of the British Isles

A comprehensive treatment of the resources of the British Isles is given, and the influence of the natural environment upon the utilization of those resources in the economic, social, and political development of the British Empire is evaluated.

Credit: 2 semester-hours

GEOGRAPHY 410. Economic Geography of Caribbean America

This is a study and interpretation of the major and important minor economic areas of Caribbean America in relation to the natural environment.

Credit: 2 semester-hours

GEOGRAPHY 411. Geographic Influences in American History

A study is made of the geographic factors influencing the development of social, economic, and political life in America.

Credit: 2 semester-hours

GEOGRAPHY 412. Geography of Africa, Australia, and New Zealand

A study is made of the activities of the people of Africa, Australia, and New Zealand in relation to their natural environment. Attention is given to the influence of geographic factors upon the post-war adjustments and the possible future relations of these countries with the United States.

Credit: 2 semester-hours

Geography 413. Economic Geography of South America

This course constitutes a study of the influence of the natural environment upon production and utilization of resources in the economic, social, and political development of the various nations of South America.

Credit: 2 semester-hours

GEOGRAPHY 414A and 414B. Advanced Economic Geography

This course is a study of the influence of the physical environment upon the production of, the trade in, and the utilization of the important agricultural, forest, mineral and sea products, and the manufactured commodities of the world.

Geography 416. Conservation of Natural Resources

This course includes a study of the natural resources of the United States, their past and present exploitation, their influence on the development of the nation, their conservation and future use.

Credit: 2 semester-hours

Geography 418. Regional Geography of North America

This course constitutes a detailed regional treatment of the continent of North America. Emphasis is placed upon the human activities of the various regions in relation to their natural environment and the relations of the regions to each other.

Credit: 2 semester-hours

Geography 419. Economic Geography of the Union of Soviet Socialist Republics

This course is designed to give a comprehensive and objective treatment of Soviet Russia's natural resources and industrial potential in relation to the geographic environment. Special emphasis is given to the formative periods of Russia's industry to show the significance of and the continuous operation of geographical factors in the economic development of Russia.

Credit: 2 semester-hours

Geography 420. Field Geography and Conservation

This course constitutes a study of the relation between relief features of northern New Jersey, the location of natural resources, and the way in which land use and population distribution follow these patterns. Emphasis is given to the reading and interpretation of topographical maps and aerial photographs and to a study of the United States Geological and Soil Surveys of this region. By means of an actual land-use survey the student comes to appreciate the problems of conservation as they grow out of man's use of natural resources.

Credit: 2 semester-hours

Music 401. The Teaching of Music in Secondary Schools

This course deals with the aims, content, and procedure in the teaching of music in the junior and senior high school.

Music 405. Orchestra Conducting and Score Reading

This course aims to develop skills in orchestra conducting and score reading. It includes a study of the particular type of ear training needed in conducting, the technique of the baton, score reading, and interpretation.

Prerequisite: Music 305

Credit: 2 semester-hours

Music 406. Modern Music

This course aims to interpret modern music in terms of the social, political, and cultural life of our times. It includes a study of the music of Debussy, Richard Strauss, Schoenberg, Stravinsky, De Falla, Hindemith, Bartok, Shostakovich, and others. Special attention is given to the relation of modern music to other forms of modern art expression.

Credit: 2 semester-hours

Music 407. The Development of the Opera

This course deals with the origin, development, and characteristics of opera in the Italian, French, German, and Russian schools. Class analyses are made of representative operas of these schools. The content of this course is related to the Saturday afternoon broadcasts from the Metropolitan Opera, New York City. Special attention is given to building an ear repertory of operatic music heard over the radio.

Credit: 2 semester-hours

Music 408. Wagner Music Dramas

This course deals with the operas and music dramas of Richard Wagner. It includes a study of Wagner's artistic ideals and their application to his compositions.

Credit: 2 semester-hours

Music 409. Counterpoint

This course aims to provide a practical treatment of counterpoint for music students. It includes analysis of the works of the sixteenth century masters of vocal polyphony with enough of original work to insure a grasp of the principles involved.

Prerequisite: Music 202

Music 410. Composition

This course aims to develop the creative power of the student in the composition of small vocal and instrumental forms. Special attention is given to the functional aspects of composition in word setting, writing accompaniments, and improvisation.

Prerequisite: Music 202

Credit: 2 semester-hours

Music 413. Masters of the Symphony

This course aims to provide the student with an understanding and appreciation of the classic and romantic symphony through the study of the symphonies of Haydn, Mozart, Beethoven, Schubert, Schumann, and Brahms.

Credit: 2 semester-hours

Music 414. Modern Symphonic Forms

This includes a study of the post-romantic symphonies of Bruckner, Mahler, Dvorak, Franck, Tschaikowsky, and Sibelius; the symphonic poems of Strauss, Smetana, and Debussy, and the orchestral suites of Rimsky-Korsakoff, Ravel, and Stravinsky.

Credit: 2 semester-hours

Music 418. Music of Russia

This course provides a survey of Russian music from the Czarist regime to the modern Soviet. It aims to interpret Russian music in terms of the social, political, and cultural forces which have shaped it.

Credit: 2 semester-hours

Music 420. The Art Song

This course provides a survey of the art song and includes a detailed study of the art songs of Beethoven, Schubert, Schumann, Brahms, Wolf, and Strauss. Special attention is given to the relation of music and poetry.

Credit: 2 semester-hours

Music 422. Chamber Music

This course provides a survey of chamber music and includes a detailed study of the string trio, quartet, and quintet by classic, romantic, and modern composers. The content of this course is related to the Sunday afternoon broadcasts of the New Friends of Music and Frick Art Museum concerts in New York City.

Music 423. Choral Masterworks

This course provides a survey of choral masterworks from Palestrina to Stravinsky. It includes a detailed study of Bach's B Minor Mass, St. Matthew Passion. Handel's Messiah. Beethoven's Missa Solemnis; Mendelssohn's Elijah; Verdi's Requiem and other great choral works. The content of this course is related to the current musical season in New York City.

Credit: 2 semester-hours

Music 424. A Survey of Wind Instrument Music

This course includes music for full band, small ensembles, and solos with emphasis on literature available for brass and wood-wind players in high school. A laboratory band as well as numerous small ensemble groups are formed by members of the class so that performance of all music under consideration is possible. Special attention is given the music originally composed for wind instruments. New music from all publishers is available for examination and evaluation.

Credit: 2 semester-hours

Music 425. Music of the Romantic Period

This course deals with the romantic spirit in music as expressed in the works of Schubert, Schumann, Mendelssohn, Chopin, Berlioz, Liszt, and others. It includes a study of program music, piano and song literature, and the rise of national schools of musical composition. Representative works are studied through performance, recontings, and radio listening. Special attention is given to parallel aspects of Romanticism in literature and the visual arts.

Credit: 2 semester-hours

Music 426. Survey of Music Literature

This is a survey course in Music Literature and includes a study of folk song, art song, oratorio, opera, idealized dance forms, instrumental suite, sonata, symphony, and symphonic poem. Abundant use of musical illustration, directed listening, and music making acquaints the student with great masterpieces of music which should be the possession of every generally cultured person. This course is designed for the general student and aims to make intelligent and appreciative consumers of music. It is a non-technical course and attempts to make intelligent and appreciative radio-listeners and concert goers. Special attention is given to the relation of music to English literature and the social studies.

Music 428. Music of Twelve Great Nations

This course aims to increase understanding among people through a study of the folk and related art music of twelve great nations. At a time of national tensions music crosses boundary lines and tends to unite peoples. Special attention is given to the social, economic, political, and cultural backgrounds of the music of these nations. Because of the social implications of this music this course is recommended particularly to teachers of the social studies. Musical illustrations are given at the piano, through group singing, and through recordings.

Credit: 2 semester-hours

Music 429. A Cappella Choir and Choral Conducting

This course deals with the theory and practice of the *a cappella* choir. It includes a study of the principles of group tone production, phonetics as related to singing, tuning, posture, techniques of choral conducting, interpretation, and score reading. A feature of this course is the study of a selected list of choral literature suitable for use in school, church, and community. Outstanding students are given an opportunity to conduct the College A Cappella Choir.

Prerequisite: Music 301

Credit: 2 semester-hours

Music 499A. Problems in the Teaching of School Music

This is a post-student teaching course. It aims to (1) evaluate student-teaching experiences; (2) give an opportunity to the student to share with his classmates the problems encountered in student teaching and to seek a possible solution for the same; (3) meet shortages in teacher preparation not provided for in previous courses; (4) give the student a unified view of school music education before he enters the teaching field. The content of this course is determined largely by the expressed needs of the students.

Credit: 2 semester-hours

Music 499B. Workshop in School Music

This course is designed primarily for music teachers-in-service who wish to work out projects for use in their respective schools. The content of this course is determined by needs in the field. It may include folk song dramatizations, small vocal and instrumental ensembles, the integration of music with other subjects in the curriculum, music for boys, visual aids in music pageants, festivals, and materials for special programs. This course provides the teacher with a number of units of work suitable for classroom use.

HEALTH Education 401. Methods and Materials in Health Education

This course prepares the teacher to assume the responsibility for organizing and conducting a program of health instruction. The coordination of health with other subject-matter fields and the evaluation of textbooks and audio-visual materials are given special consideration.

Credit: 2 semester-hours

HEALTH EDUCATION 407. Prevention and Care of Athletic Injuries

This is a lecture and laboratory course designed to acquaint the student with ways to prevent and to care for the common injuries sustained in athletics.

Credit: 2 semester-hours

HEALTH EDUCATION 408. Behind-the-Wheel Driver Education and Driver Training

Part I

This part consists of a minimum of 40 hours of class recitations and discussions for which home reading and study have been assigned. The following topics are included: (1) history and development of driver education and training programs; (2) objectives of driver education; (3) local, state, and national traffic safety programs; (4) driver qualifications; (5) psycho-physical testing; (6) curriculum content of school courses in driver education and training; (7) construction, operation, and maintenance of automobiles; (8) traffic laws and driver licensing; (9) traffic engineering; (10) pedestrian education and protection; (11) equipment for teaching driver education; (12) liability, costs, and insurance; (13) planning driver education as a part of the daily program of the high school; (14) public relations; (15) records and reports; and (16) visual aids in teaching driver education.

Part II

This part consists of a minimum of 20 hours devoted to the following: (1) behind-the-wheel instruction: (2) demonstrations and student-teacher practice in the car; and (3) road tests in traffic. Home reading and study are required in preparation for these projects.

Prerequisite: License to drive a car

HEALTH EDUCATION 411. School Health Services

The student is familiarized with the health services available in the school. The part which the teacher plays in coordinating his activities with the school medical staff is emphasized.

Credit: 2 semester-hours

HEALTH EDUCATION 412. Home Hygiene and Care of the Sick

Principles, methods, and content for teaching home care of the sick and mother and baby care are presented in this course. All lessons are demonstrated. Teaching by students is an essential part of the course. Successful completion of the course qualifies the student as a Red Cross instructor in home care of the sick and mother and baby care for student groups, mothers' groups, and other community groups. Credit for this course may be applied as partial fulfillment for the requirements for the permanent certificate for school nurses. Nurses, teachers, and teachers-in-training may enroll for this course.

Credit: 2 semester-hours

Physical Education M405. Management of Athletic Activities

The student is provided with information essential to the good management of an intra-mural and interscholastic athletic program. Some of the major problems to be considered are: education values, health and safety of participants, insurance, transportation, scheduling, management of finances, budgeting, maintenance of play areas, care of supplies and equipment, state and local athletic associations, and the organization of leagues and meets.

Credit: 2 semester-hours

Physical Education W405. The Program of Physical Education for High-School Girls

Consideration is given to the entire physical education program for girls in junior and senior high school including: preparation of courses of study, methods of instruction, and extra-curricular activities. Active participation in the activities may be required by the instructor.

Physical Education 409. Organization and Administration of Physical Education

The details of organizing the units of the physical education programs are discussed. Various topics, such as legislation, financing, curriculum construction, grading, excuses, plant facilities, supplies and equipment, and office management are considered.

Credit: 2 semester-hours

PHYSICAL EDUCATION 410. Water Safety and First Aid

This course includes intensive instruction in swimming, diving, water sports, boating, canoeing, water safety, and first aid. Students can qualify for Red Cross certificates during this course.

THE NEW JERSEY STATE SCHOOL OF CONSERVATION

The six State Teachers Colleges, the State Department of Education, and the State Department of Conservation and Economic Development jointly operate the New Jersey State School of Conservation at Lake Wapalanne in Stokes State Forest, Sussex County. Credit for the courses given at the New Jersey State School of Conservation may be applied toward the Master's degree at the New Jersey State Teachers Colleges, subject to approval in advance by the institution concerned. Students are advised to check with their advisers relative to the application of these credits towards graduate degrees.

The following courses may be offered at the New Jersey State School of Conservation. For complete course descriptions, please refer to the departmental write-ups appearing in this bulletin. Special descriptive announcements may also be had by writing to the New Jersey State School of Conservation, Upper Montclair, New Jersey.

ART DEPARTMENT

Art 415. School Arts and Crafts with Native Materials

GEOGRAPHY DEPARTMENT

Geography 420. Field Geography and Conservation

INTEGRATION DEPARTMENT

Integration 440. Camping Education

Integration 441. Conservation Education Integration 442. Practicum in Camp Leadership

Integration 443. Practicum in Camping Education and Administration

Integration 444. Practicum in Conservation Education Integration 480. Field Science for Elementary Teachers

MATHEMATICS DEPARTMENT

Mathematics 411. Field Mathematics

MUSIC DEPARTMENT

Music 424. A Survey of Wind Instrument Music

HEALTH AND PHYSICAL EDUCATION DEPARTMENT

Health Education 412. Home Hygiene and Care of the Sick Physical Education 410. Water Safety and First Aid

SCIENCE DEPARTMENT

Science 405. Field and Laboratory Studies in Science Science 411. Problems in Field Studies in Science Science 412. Field Studies in Science: Biological Science 413. Field Studies in Science: Physical Science 414. Conservation of Plants and Animals Science 415. Conservation of Soil and Water Science 416. Problems in Conservation

Science 417. Science Problems in Conservation

SOCIAL STUDIES DEPARTMENT

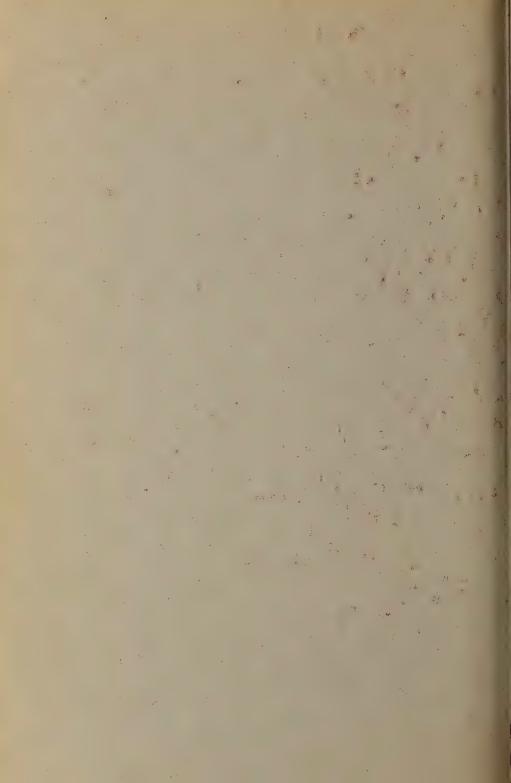
Social Studies 477. Rural Sociology Social Studies 494. Social, Economic, and Geographic Implications of Conservation

Colleges From Which Graduate Students Now Matriculated Received Their Baccalaureate Degree

A & T College, Greensboro, N. C. Alfred University Barnard College
Bennett College
Bethany College
Bloomfield College
Bob Jones University
Boston University Brown University
Calvin College
Catholic University Cathonic University
Cedar Crest College
Colby College
Colgate University
College of St. Elizabeth
College of the City of New York
Cooper Union Cornell University Dana College of the University of Newark Dickinson College Drew University
Duke University
East Stroudsburg State Teachers College Eastern Kentucky State Teachers College Emmanuel College Fordham University Franklin & Marshall College Georgetown University Georgian Court College Goucher College Grove City College Guilford College Hampton Institute Holy Cross College Hope College Howard University Hunter College Lafayette College Lehigh University Limestone College Muhlenberg College
New Jersey College for Women
New York University
Notre Dame University

Oberlin College Ohio Wesleyan University Ouachita College Panzer College Pennsylvania State College Pratt Institute Rider College Russell Sage College Rutgers University St. Bonaventure College
St. John's University
St. Lawrence University
St. Leter's College
Seton Hall College
Smith College
Smith College
Springfield College
State Teachers College at Glassboro
State Teachers College at Jersey City
State Teachers College at Kutztown
State Teachers College at Montclair
State Teachers College at Newark
State Teachers College at Paterson
State Teachers College at Trenton
State Teachers College at West
Chester St. Bonaventure College Chester Swarthmore College Syracuse University
Teachers College, Columbia University
Temple University Tufts College Tusculum College University of Alabama
University of Florida
University of Illinois
University of Maine
University of Michigan
University of North Carolina
University of Pennsylvania
University of Wisconsin
University Of Wisconsin Upsala College Vassar College
Washington & Lee University
Wesleyan University, Connecticut
Wheaton College
Woman's College of the University of
North Carolina
Xavier University



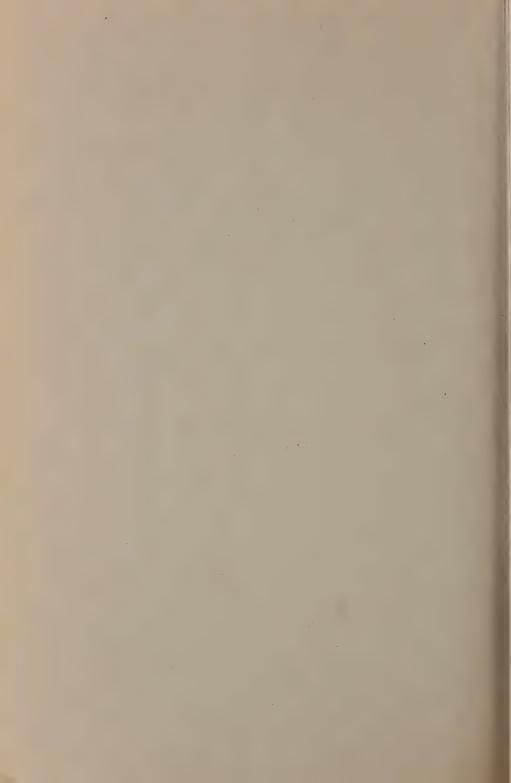


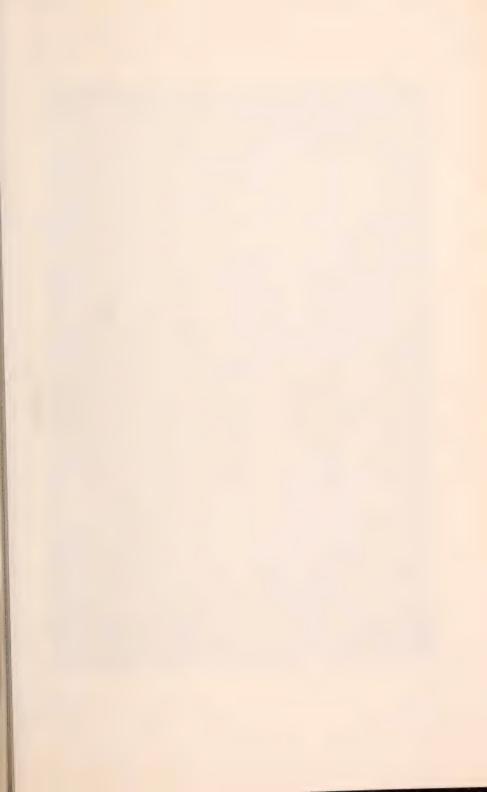
NEW JERSEY
STATE TEACHERS COLLEGE
AT MONTCLAIR

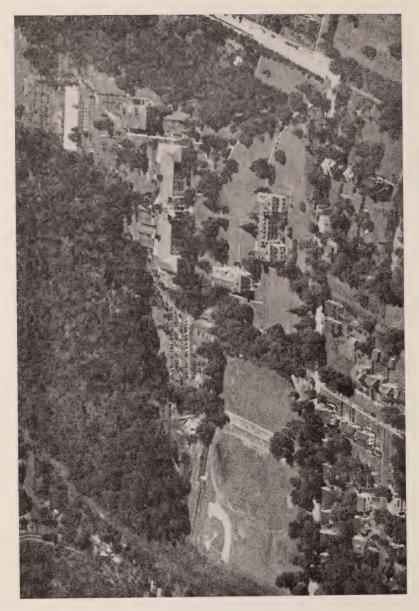
GRADUATE BULLETIN
1955-1957



UPPER MONTCLAIR, NEW JERSEY







"A Wooded Campus Thirty Minutes from Times Square"

BULLETIN

OF THE

New Jersey State Teachers College at Montclair

GRADUATE DIVISION

NEW JERSEY STATE TEACHERS COLLEGE

Montclair

1955

VOLUME 48

NUMBER 1



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ADMINISTRATION

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JOHN S. GRAY	
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MRS. HERBERT REIM	. Maywood
MRS. FREDERIC H. SANFORD	Surley
HENRY A. WILLIAMS	Pateroon

FREDERICK M. RAUBINGER ...

.!ssistant Commissioner for Higher Education

ROBERT H. MORRISON

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	Dean of Instruction
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EDWIN S. FULCOMER	
MOWAT G. FRASER	
DAVID R. DAVIS	Crimmin of Department or Mathematics
RUFUS D. REED	Chairman of Department of Science
ELWYN C. GAGE	Head of Department of Social Studies
OTIS C. INGEBRITSEN .	Chairman of the Graduate Committee
EARL C. DAVIS	Director of Personnel and Guidance
MARGARET A. SHERWIN	(Dean of Women
MARY M. HOUSE	Rv i trair
ELIZABETH S. FAVOR	Assistant in Graduate Personnel
BERNARD SIEGEL	Business Manager

CRADUATE COMME

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CLYDE M. HUBER
WILLIAM R. PHIPPS
HOPES D. RELAN
H ELIZABETH S. FAVOR, Secretar

RUFUS D. REED

EMERITUS FACILITY

GRADUATE FACULTY

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CLYDE M. HUBER, Ph.D	Dean of Instruction
HUGH ALLEN, JR., A.M	Assistant Professor of Science
EDWARD J. AMBRY, A.M	Assistant Professor of Education
KEITH W. ATKINSON, Ph.D	Professor of Education
WILLIAM A. BALLARE, A.M	Assistant Professor of Speech
HAROLD C. BOHN, Ed.D	Associate Professor of English
EDGAR C. BYE, A.M	Associate Professor of Social Studies
LILLIAN A. CALCIA, Ed.D	Professor of Fine Arts
FRANK L. CLAYTON, Ph.D	. Associate Professor of Social Studies
PAUL C. CLIFFORD, A.M	Associate Professor of Mathematics
LAWRENCE H. CONRAD, A.M	Associate Professor of English
GERMAINE P. CRESSEY, A.M	
ANNE BANKS CRIDLEBAUGH, A	

RICHARD W. WILLING, Ph.D.. Assistant Professor of Business Education FREDERIC HAROLD YOUNG, Ph.D.

PURPOSES

The New Jersey State Teachers College at Montclair is a professional school devoted primarily to the interests of secondary education. This objective is the controlling factor in the development of the curricula, teaching procedures, extra-curricular activities, and college spirit, and tends to unify all the activities of the college—professional, cultural, and social.

Graduate courses are organized to serve the purposes of two groups of students:

Those who wish to matriculate for the degree of Master of Arts: Graduates of accredited liberal arts and professional colleges. Secondary teachers, supervisors, principals, and other school administrators, who are graduates of approved colleges.

Those who do not wish to matriculate for the degree:

Students who hold graduate degrees but who wish to continue their professional preparation.

College graduates who wish to take courses leading toward secondary school certification.

Students who are matriculated for advanced degrees in other colleges and universities and who plan to transfer their credits.

Special students taking courses for cultural purposes without reference to credit.

ORGANIZATION

The work is organized to meet the needs of those who wish to do full-time work and of those who are teaching and who wish to take courses in the late afternoon, evening, or on Saturday morning. The courses in the Part-Time and Extension Division and Summer Sessions are given by members of the college staff and are granted resident credit. It is thus possible for a teacher in service to carn the Master's degree without taking a leave of absence from his teaching position.

To meet the needs of those candidates lacking secondary certification, some of the professional courses required for certification in the State of New Jersey may be taken on the graduate level. Students holding A.B. degrees from other colleges are permitted to matriculate for the Master's degree here prior to obtaining certification; but by the time the degree is to be conferred, they must have qualified for a teaching certificate. In all major departments except that of the Department of Integration this must be a secondary teaching certificate. Students who are working for certification should write to the Secretary of the State Board of Examiners, 175 West State Street, Trenton, New Jersey, submitting a transcript of all their previous college work and ask for an evaluation as to what they are lacking for certification.

Graduate students who must meet certification requirements as well as the requirements for the Master's degree will find it necessary to spend additional time on the campus and in student teaching. Supervised student teaching, required for certification, does not carry graduate credit.

STUDENT TEACHING

Graduates of other colleges who wish to do their student teaching through the New Jersey State Teachers College at Montclair should obtain from the Integration Office the mimeographed statement outlining the conditions under which it can be done.

Students who desire to meet the State requirement in Supervised Student Teaching must register for that experience with the Assistant

in Graduate Personnel

ADMISSION AND MATRICULATION

The applicant for admission must be a graduate of an accredited college or university and must present evidence of his qualifications for advanced study as shown by a high scholastic record, training, and experience. Note that matriculation for the Master's degree must be completed before the candidate has acquired more than eight semester-hours of graduate credit.

Steps in the matriculation process are as follows:

1. The candidate secures from the Graduate Office an application which must be completed and returned to that office.

2. The candidate will have his college send official transcripts of all undergraduate credits (if the applicant is not a graduate of Montclair), to the Chairman of the Graduate Committee. Official transcripts should be on file in the Graduate Office before the time of registration for graduate courses.

3. After the application and transcripts have been received and reviewed in the Graduate Office, the candidate will be invited to confer

with the Chairman of the Graduate Committee.

4. The candidate will next confer with the graduate adviser in the department in which he expects to do his work, and the adviser will

develop a program of courses with him.

5. The candidate will then have a final brief conference with the Chairman of the Graduate Committee. Following this, the candidate will be advised in writing of the decision of the Graduate Committee and will be furnished with a statement of the work to be completed.

Final action on all applicants is vested in the Administrative Council.

Announcements are made with the offerings of courses each semester as to when the departmental advisers and the Chairman of the Graduate Committee may be consulted.

ADVANCED CREDITS

For graduates of institutions other than the New Jersey State Teachers Colleges and Rutgers University (the State University), a minimum of thirty-two semester-hours of residence work is required. In the case of graduates of the New Jersey State Teachers Colleges and the State University a maximum of eight semester-hours of graduate work from other accredited institutions may be offered toward the Master's degree.

Students who are eligible to transfer from other institutions graduate credits earned prior to matriculation must submit official transcripts of these credits for consideration by the Graduate Committee.

Candidates eligible to take work at other graduate schools and who desire to do so after matriculation must first secure written permission from the head of the department concerned at Montclair and from the Chairman of the Graduate Committee, if the credits so gained are to be applied toward the Master's degree.

Not more than eight semester-hours of graduate credit will be granted for work taken prior to matriculation. For this reason, candidates should apply for matriculation before the completion of

that amount of work.

STUDENT LOAD

Graduate work should involve careful and intensive study with ample time to explore areas which may warrant further study.

Twelve to sixteen hours of work per semester is considered a full-

time program for the graduate student in residence.

For teachers employed full time, six semester-hours of work in any one semester shall be the maximum load with four semester-hours being recommended.

In the regular six-week summer session, the maximum load shall be eight semester-hours. The Graduate Committee strongly recommends that the student consider six semester-hours of work a full program.

REQUIREMENTS FOR A.M. DEGREE

Thirty-two semester-hours of graduate credit are required for the Master of Arts degree.

Each student selects a major field in which he must complete such courses as are prescribed.

Each department except that of Integration requires at least thirty semester-hours of credit in its field as a prerequisite to matriculation.

The Integration Department requires twenty-four semester-hours in its field; all other departments require a minimum of eighteen semester-hours.

For graduates of teachers colleges, at least six semester-hours of the required total must be taken in the Department of Integration. The amount of such work required of graduates of other colleges is determined by the number of courses needed for certification. Integration 503 is required of all students matriculated in the Graduate Division.

Four of the total credits may be satisfied by a thesis which meets the approval of the Graduate Committee.

A candidate who is matriculated for the A.M. degree after September 1, 1952, must attend as a full-time graduate student one summer session or one regular semester.

An average of "B" or better is required for work submitted for the Master's degree. No credit is given for work below "C."

Certification to teach in New Jersey or a letter of eligibility is a prerequisite to the conferment of the Master's degree at the Montclair State Teachers College. Those matriculated in subject-matter areas must be certified to teach the major subject in secondary school. Students matriculated in the Integration Department need either elementary or secondary certification.

Work for the degree must be completed within five years of the date of matriculation.

Comprehensive Examinations

A comprehensive departmental examination is required in all departments. This examination may be both written and oral. The examination is given by the department in which the student does his major work. No academic credit is given for the examination.

In some departments the thesis may be offered in place of the written comprehensive examination. Usually the oral examination is required in case a thesis or research problem is presented in lieu of the written examination.

Application for Conferment of Degree

Candidates must file with the Registrar an application for conferment of the degree before November 30 of the college year in which the work is to be completed. Application blanks for this purpose may be secured from the Registrar. The burden of responsibility for the request rests with the candidate. This is of special significance to the teacher in service who may have distributed the graduate work over four or five years.

GENERAL RESTRICTIONS

No credit is granted for:

- 1. Correspondence work.
- 2. Junior-college courses.
- 3. Graduate courses with mark below "C."
- 4. Supervised teaching.
- More than eight semester-hours of graduate credit prior to matriculation.
- 6. The comprehensive departmental examination.
- 7. More than six semester-hours of graduate credit earned in extension (off-campus) courses.
- 8. Graduate work taken elsewhere unless the student is a graduate of one of the New Jersey State Teachers Colleges or the State University, and in such cases not more than eight points.

FEES AND SERVICE CHARGES

Eleven dollars (\$11.00) per semester-hour to residents of New Jersey and those non-residents who teach in New Jersey public schools.

Thirteen dollars (\$13.00) per semester-hour to non-residents of the State of New Jersey who do not teach in New Jersey public schools.

Late Registration Fee, two dollars (\$2.00).

Service charge, fifty cents (\$.50) per semester-hour.

Supervised Student Teaching (ii required), sixty-six dollars (\$66.00).

Dormitory fees including room, breakfast, and dinner for a summer session, fourteen and one-half dollars (\$14.50) a week.

These charges are subject to revision.

All charges are payable during the registration period.

THE MASTER'S THESIS AND RESEARCH

The writing of a Master's thesis is optional. The election to write a thesis should be considered in terms of the subject matter, the opportunities to carry out the research project on a standard acceptable for a thesis, and the needs of the individual in relation to his plan of graduate study.

Some departments have in effect the equivalent of a thesis requirement except for the formal filing of the complete typed thesis following standard style.

Students in the Social Studies Department complete either a Master's thesis or a Master's essay on a problem which each individual chooses for specialization. The student is then given an oral examination on the paper before a seminar of members of the Social Studies Department.

An extensive term paper resulting from an individual research project is completed by every student in the course, INTEGRATION 603, Principles and Practices of Research. Students who plan to write a thesis are encouraged to take this course prior to the work for the thesis.

Other departments have research courses which follow the basic course, INTEGRATION 503, Methods and Instruments of Research, and which are designed to give the student a good foundation for thesis work. These special departmental provisions are outlined in each departmental statement of requirements.

Students writing a thesis must register with the Chairman of the Graduate Committee for the course, Graduate 500, Master's Thesis, for four semester-hours

The following information is of aid to students submitting Master's theses:

a. Choice of Topic and Plan of Research.

The topic and plan of research will be worked out in consultation with the head of the student's major department. A sponsor will be appointed by the head of the department.

b. Presentation of Plan.

The plan for the thesis and its research must meet the approval of the sponsor, the head of the department concerned, the Graduate Committee, and the Dean of Instruction.

c. Mechanics of the Thesis.

Each thesis student should be guided by William G. Campbell's Form and Style in Thesis Writing which may be borrowed from the Library or purchased at the College Bookstore.

d. Submitting the Thesis.

A typewritten copy of the thesis must be submitted to the sponsor who, if he approves of it, will submit the thesis to a reading committee. This should be done not later than six weeks prior to the date of graduation. Any changes recommended by the reading committee must be made by the candidate. Three typewritten copies of the thesis, as finally approved, must be presented by the candidate to the head of his major department at least two weeks before the date of graduation. Final acceptance rests with the Administrative Council.

- e. An acceptable thesis shall show evidence that:
 - 1. The candidate has comprehended the essentials of his problem, followed a well-organized plan of work, and offered satisfactory solutions.
 - 2. The candidate has made an independent and intensive study of his problem.
 - 3. The candidate has made a comprehensive study of the literature of his subject.
 - 4. The candidate's conclusions are justified by his findings.
 - 5. The candidate has a practical working knowledge of research methods.
 - 6. The thesis is not a duplicate of a similar study.
 - 7. The data involves a sufficient fund of information to make the findings significant.
 - 8. The thesis is of definite value to the teaching profession.

FIELDS OF WORK

Majors in graduate work are offered in the fields of Administration and Supervision, Biology, Business Education, English, Mathematics, Personnel and Guidance, Physical Science, Science, and Social Studies. In each curriculum there is a core of educational courses and major subject-matter courses. The amount of each type depends on the candidate's undergraduate work and is determined by the student's graduate committee. The work in Administration and Supervision and in Personnel and Guidance is limited largely to professional courses in order to meet the State certification requirements.

Students choosing a major field of study at the graduate level should keep in mind that certain experience requirements are needed in the fields of Administration and Supervision and Personnel and Guidance. Enrollment in certain Integration courses is limited to those who are having or who have had actual teaching experience. For details see page 38.

DEPARTMENT OF BUSINESS EDUCATION

The graduate work in the Department of Business Education is designed to prepare teachers of business education for administrative, supervisory, specialized work or master teaching in the field of business education. In order to attain these objectives the candidate has an opportunity to supplement his undergraduate program and to explore advanced areas of work in accordance with his individual background, experience, achievement, and professional needs.

Graduate work toward the Master of Arts degree in Business Education presupposes the completion of an undergraduate major in business education, or its equivalent. The undergraduate major is based on the requirements as established by the New Jersey State Board of Education. For further details see the undergraduate bulletin.

In lieu of four of the thirty-two semester-hours of credit required for the Master of Arts degree, the candidate may write a thesis giving the results of some study in the field of business education or its teaching. This study may be made only after consultation with the Chairman of the Business Education Department. Plans should be made to have such a study in its final form and approved by the Department of Business Education by May 1st of the year in which the degree is expected to be conferred.

All candidates for the Master of Arts degree in Business Education must pass a comprehensive examination before they are granted the degree. This examination is given the first Saturday in April and the last Saturday in July for those candidates anticipating graduation. It is general in nature and is intended to test the candidate's maturity of thought with respect to business education.

GRADUATE PROGRAM OF STUDIES

MASTER OF ARTS DEGREE IN BUSINESS EDUCATION

Division I.	Required	Integration	Department	Courses	(6)	١٠.	11.	re
quire								

Int. 503.	Methods and Instruments of Research	2	S.	h.
Int. 500A.	Basic Educational Trends	2	S.	h.
Elective	To be chosen on recommendation and approval of the			
	Chairman of the Department of Business Education	2	c	h

Division II. Research Seminar, Field Work and Thesis (8 to 10 s. h.)

B. E. 501.	Research Seminar in Business Education	4 s.h.
Graduate 500		4 s. h.
В. Е. 532.	Field Studies and Audio-Visual Aids in Business Education	
B. E. 533.	or Supervised Work Experience and Seminar	4 s. h.

Division III. Required Business Professional Courses

Group A—(4 s. h. required)

B. E. 502.	Principles and Problems of Business Education	2 s.h.
B. E. 503.	The Business Education Curriculum	2 s.h.
B. E. 504.	Administration and Supervision of Business Education	2 s.h.
B. E. 505.	Tests and Measurements in Business Education	2 s.h.

Group B—(4 s. h. required)

B. E. 520.	Improvement	of Instruction	in Business	Education
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Part A. General Business Subjects	2	S.	h.
Part B. Bookkeeping, Accounting, and Business Arithmetic	2	S.	h.
Part C. Secretarial Subjects	2	S.	h.
Either part may be elected separately. A minimum of two			
parts must be completed.			

Division IV. Elective Subject-Matter Courses

(8 to 10 s. h. required—dependent on the total accumulated in Division II—to be selected on recommendation and approval of the Chairman of the Department of Business Education.)

^{*} Students writing a thesis will take 501A and will substitute four (4) semester-hours for the thesis in place of 501B. This will count as a total of six (6) semester-hours in research and thesis.

THE GRADUATE COURSES

Business Education 501. Research Seminar in Business Education

This course deals with research and literature in the field of business education. The emphasis is placed on making the classroom teacher an intelligent consumer of the current research findings and publications related to business education.

Credit: 4 semester-hours

BUSINESS EDUCATION 502. Principles and Problems of Business

The purpose of this course is to survey the basic principles and practices of business education. Among the topics considered are: history of the high school business program, purposes, attitudes of management and labor toward education, the relationship of general education to business education, and trends in the field.

Credit: 2 semester-hours

Business Education 503. The Business Education Curriculum

This course is a sequel to Business Education 502 which should be completed as a prerequisite. It deals with the curricula in business education for various levels and types of schools. In this course, the student learns how to evaluate present programs and to make recommendations for needed changes.

Credit: 2 semester-hours

Business Education 504. Administration and Supervision of Business Education

This course offers an opportunity to study the problems of organizing, directing, and supervising business education programs. Such matters as the functions of the administrator and supervisor of business education, textbook selection, teacher selection, testing programs, conferences, and equipment and layout are considered.

Credit: 2 semester-hours

Business Education 505. Tests and Measurements in Business Education

This course deals with constructing, administering, interpreting, and evaluating all types of testing materials in business subjects.

Business Education 520A, B, C. Improvement of Instruction in Business Education

This course gives the experienced business teacher an opportunity to study the content, methods, teaching aids, and evaluation procedures in at least two * of the three specialized fields:

Bus. Ed. 520A.* General Business Subjects

Credit: 2 semester-hours

Bus. Ed. 520B.* Bookkeeping, Accounting, and Business Arithmetic

Credit: 2 semester-hours

Bus. Ed. 520C.* Secretarial Subjects

Credit: 2 semester-hours

Note: A minimum of two (2) parts of Bus. Ed. 520 must be completed.

Business Education 532. Field Studies and Audio-Visual Aids in Business Education

This course gives the classroom teacher an opportunity to visit some of the many business offices, industries, and retailing organizations located in the metropolitan area. It also provides for a study of the many audio and visual aids available for use in business classes.

Credit: 4 semester-hours

Business Education 533. Supervised Work Experience and Seminar

The graduate student who has not had extensive business experience has an opportunity to work full-time for six weeks during the summer in a business position under College supervision. An evening conference is held weekly to discuss problems related to the work experience program.

Credit: 4 semester-hours

Business Education 540. Auditing

This course seeks to develop the meaning and techniques of auditing procedure. It includes practice in the fundamental mechanics of auditing as well as in the making of the formal report on an audit.

Prerequisite: 8 semester-hours of accounting.

Business Education 541. Tax Accounting

The primary purpose of this course is to give a comprehensive picture of the Federal Tax structure, and to provide training in the application of basic principles to specific problems of the individual and corporation.

Prerequisite: 6 semester-hours of accounting.

Credit: 2 semester-hours

Business Education 542A. Advanced Business Law Cases I

This course presupposes a knowledge of the basic principles of business law. It is designed to furnish a broader understanding and background in areas requiring considerable training to be effective in the classroom. Cases are concerned with the topics of contracts, negotiable instruments, and insurance.

Credit: 2 semester-hours

BUSINESS EDUCATION 542B. Advanced Business Law Cases II

This advanced law course is a continuation of Bus. Ed. 542A, but course 542A is not a prerequisite. A basic knowledge of the principles of law is, however, required. The course includes a further study of law cases pertaining to bailments, carriers, sales, property, landlord and tenant, torts, and business crimes.

Credit: 2 semester-hours

Business Education 543A. Advanced Accounting I

The content of this course emphasizes an intensive study of the items making up accounting statements and the principles of valuation and income determination. Problem solving is an integral part of the course. At least eight semester-hours of accounting are required as a prerequisite.

Credit: 2 semester-hours

Business Education 543B. Advanced Accounting II

This course is a continuation of Bus. Ed. 543A, but course 543A is not a prerequisite. Topics treated include consignments, agency and branch accounting, consolidations, receivership accounting, estate and trust accounting. At least eight semester-hours of accounting are required as a prerequisite.

DEPARTMENT OF ENGLISH

Graduate study in the Department of English is designed:

- 1. To increase the student's comprehension and appreciation of the literature of Great Britain and of the United States of America.
- 2. To introduce current materials and methods for improving instruction in English in the secondary school.
- 3. To show how language functions in individual expression and in social communication in the language arts; reading, writing, speaking, and listening.
- 4. To investigate recent experimentation and research in the teaching of English.

REQUIREMENTS IN THE ENGLISH DEPARTMENT

Graduate study leading to the Master's degree in English presupposes an undergraduate major in English of at least thirty semester-hours. Before matriculation, each candidate for the Master's degree secures from the Head of the Department an approved course outline requiring at least eighteen semester-hours in English at the senior-graduate level. Distribution of these courses is as follows:

- I. Required Work in Literature. Minimum requirements—12 semester-hours
 - A. American Literature. Minimum requirements—1 semester-hours.

These may be selected from the courses listed below: Eng. 406, 407, 413, 421, 439, 442A, 442B, 443, 446, 525, 533, 537, 538

B. British Literature. Minimum requirements—6 semester-hours

These may be selected from the courses listed below:
Eng. 402, 404, 406, 407, 413, 420, 421, 431A, 431B, 443, 446, 502, 503, 505, 506, 515, 518, 521, 531, 532, 535

C. World Literature. Minimum requirement—2 semester-hours

This may be selected from the courses listed below: Eng. 427, 432, 451, 459, 513, 514, 520 \(\lambda \), 520 \(\lambda \), 520 \(\lambda \), 520 \(\lambda \), 524, 528, 530, 534, 536

- II. Required Work in Language Study. Minimum requirements—
 - A. Language Study. Minimum requirement—4 semester hours These may be selected from the courses listed below: Eng. 408, 419, 507, 511, 512, 516
 - *B. Reading Courses

These courses are as follows:

Eng. 430, Eng. 455, Int. 430, Int. 530A, Int. 530B, Int. 532

*C. Speech Courses

These courses are as follows:

Eng. 410, 417, 435, 448, 449, 454, 456, 457, 461A, 461B, 462, 463, 464, 466, 467, 522

*Note: Either a course in reading or a course in speech may be offered toward meeting two of the required four semester-hours in this area.

III. Required Work in the Teaching of English. Minimum requirement—2 semester-hours

This may be selected from the courses listed below: Eng. 401, 401X, 409, 517, 519

IV. Departmental Examination for which no academic credit may be given

All candidates for the Master's degree in English must pass a written comprehensive examination before the degree is awarded. Information concerning the examination may be secured from the Head of the Department.

The candidate may elect to write a thesis of professional value in the teaching of English in the secondary school. Four semester-hours of credit are granted for this thesis, but this credit cannot be considered part of the minimum eighteen semester-hours unless written permission is secured in advance from the Head of the Department.

GRADUATE COURSES

English 502. Victorian Poetry

The most important English poets who wrote during the transition from the Victorian to the modern period are read and discussed. An important feature of the course is the analysis and appreciative reading of the lyric poetry of Rossetti, Swinburne, Hardy, Bridges, G. M. Hopkins, Francis Thompson, A. E. Housman, Kipling, and W. B. Yeats.

ENGLISH 2.

ENGLISH 503. Geoffrey Chaucer and His Times

Some of the works of Chaucer are read rapidly, others studied intensively, so that the students may acquire a broad general understanding of Chaucer's place in the history of English literature as well as facility in reading and interpreting the medieval text of his stories.

Credit: 2 semester-hours

ENGLISH 505. Philosophy and English Poets

This course is designed to show the dependence of such English poets as Wordsworth, Coleridge, Shelley, Keats, Tennyson, and Browning upon the philosophical thinking of their day. The course aims to provide a philosophical background for the reading of teachers of modern literature and for the interpretation of much of the poetry which they teach in high school.

Credit: 2 semester-hours

ENGLISH 506. John Milton

This course has for its primary aim the understanding and evaluation of Milton's poetry. Contributory to this end are the following topics: the Puritan struggle for civil and religious liberty; the growth of science in the seventeenth century; the life, personality, and prose writings of Milton; his literary heritage and influence; comparison of Milton with the Cavalier Metaphysical poets.

Credit: 2 semester-hours

ENGLISH 507. Critical Writing

This course evolves a body of critical principles for judging art and literature, and provides training in the writing of criticism, ranging from comments upon pupils' themes to a full and comprehensive essay upon the work of some outstanding author.

Credit: 2 semester-hours

ENGLISH 511. The History of Literary Criticism

The purpose of this course is to familiarize the student with the chief doctrines of the great critics from Aristotle to I. A. Richards and T. S. Eliot and to correlate these critical doctrines with the outstanding writings of each age. By such a study it is possible for the student to evaluate the historical interrelations of expert criticism and literary production. A basic text is used, but much of the information is gleaned from source materials.

English 512. The Growth and Structure of the English Language

This course is designed to help the high school teacher understand the structure of modern English, one of the most complicated of contemporary tongues. Through an analysis of the historical evolution of our language, the student discovers the reasons for many of the seemingly illogical and arbitrary characteristics of modern English spelling, grammar, and morphology.

Credit: 2 semester-hours

ENGLISH 513. The Renaissance

This course deals with Petrarch and the humanists; Boccaccio and the *Novelle*; the House of the Medici, Savonarola, the Popes; Machiavelli and *The Prince*; Cellini and the *Autobiography*; Castiglione and *The Courtier*; Boiardo, Pulci, Ariosto, and the romantic epic; the drama; the art of Da Vinci, Botticelli, Michelangelo, Raphael, Titian, and others; Rabelais and the *Gargantua and Pantagruel*; Cervantes and *Don Quixote*; Ronsard and the French *Pleiade*.

Credit: 2 semester-hours

English 514. Origin and Development of the Arthurian Legend

This course deals with the vague and tentative beginnings of the Arthur story in early chronicle and legend; with Geoffrey of Monmouth's pseudo-historical and Chretian de Troyes's romantic treatments; with the great medieval recapitulations of Gottfried von Strassburg, Wolfram von Eschenbach, and Sir Thomas Malory; with the Victorian retellings of Tennyson, Arnold, and Morris; with the musical adaptations of Wagner; and with the modern versions of E. A. Robinson. It includes a detailed history of the development of the legend in its divers forms.

Credit: 2 semester-hours

English 515. Robert Browning

Browning's characteristic shorter poems are recalled or studied in order to define his fundamental ideas as a writer. This is followed by a study of his longer poems and dramas: the "soul-studies", Pauline, Paracelsus and Sordello; the dramas, Strafford, Pippa Passes, A Blot in the 'Scutcheon, Colombe's Birthday, and In a Balcony; the translations, The Agamemnon of Aeschylus, and Balaustion's Adventure; and Browning's masterpiece, The Ring and the Book. These works are studied for their literary and philosophical values, as showing the development of Browning as man. poet, and philosopher, and as a reflection of certain phases of nineteenth-century life and thought.

English 516. Language Problems in the English Curriculum

This course reviews the several theories of language and studies the problem of meaning in order to arrive at a suitable technique for the interpretation of prose and verse. This technique is then applied to the problems of reading, of composition, of speech, and of appreciation of literature. The course has two aims: to increase the student's own skill in dealing with language, and to increase his effectiveness in teaching.

Credit: 2 semester-hours

English 517. Recent Research and Experiment in the Teaching of English

This course analyzes and evaluates current research in the fields of language, literature, and composition relevant to the teaching of English in the high school, and examines critically recent experimentation in methods of teaching English. The aim of the course is to make available to the student any recent knowledge and experience which may throw light on the problems of English teaching in secondary schools and to evaluate tendencies in this field. The course is conducted as a seminar.

Credit: 2 semester-hours

ENGLISH 518. The Major Romantic Poets

This course studies the work of Coleridge, Wordsworth, Scott, Byron, Shelley, and Keats. It devotes especial attention to the poems which are best adapted for the reading of high school students.

Credit: 2 semester-hours

English 519. English in the Modern High School

This is a seminar in which the methods and materials requisite to the development of a program in the language arts (listening, speaking, reading, and writing) are considered.

Credit: 2 semester-hours

ENGLISH 520A and 520B. Great Books on Education

Students examine the classics dealing with educational theory and practice which they so often read about but rarely consult: Plato's Republic, Xenophon's Cyropaedia, Cicero's De Oratore. Castiglione's The Courtier, Machiavelli's Prince, Rabelais's Abbey of Thelemo, Ascham's Schoolmaster, Bacon's Norum Organum, Defoe's Projects. Milton's To Samuel Hartlit on Education. Rousseau's Emile.

Byron's Don Juan, Hughes' Tom Brown's Schooldays, Newman's Idea of a University, the Arnold-Huxley debates, and the works of John Dewey and Jacques Barzun. This course is recommended for graduate students in the Department of Integration.

Part A-Plato to Rousseau.

Part B-Rousseau to Dewey.

Credit: 2 semester-hours each

English 521. English Literature of Social Problems

This course surveys English literature from 1800 to 1914, and the principal authors discussed include Shelley, Dickens, Kingsley, Tennyson, Carlyle, Butler, Meredith, Galsworthy, Bennett, Shaw, and Wells.

Credit: 2 semester-hours

English 522. Advanced Phonetics

This course provides ear-training to develop skill in recognizing and distinguishing a-typical English speech sounds, regional differences in pronouncing American English, and foreign sounds heard in English speech. This is followed by extensive practice in transcribing speech sounds into International Phonetic Alphabet symbols and in reading International Phonetic Alphabet transcriptions. A thorough study of the speech characteristics of some geographical region with which the student is personally familiar is required of each student.

Credit: 2 semester-hours

ENGLISH 524. Five Great Books

The aim of this course is to broaden and to deepen the student's general cultural perspective by a study of five books which have profoundly influenced present civilization. The actual choice of texts is a cooperative class enterprise. Selections are made from such books as: The Bible, Homer's Odyssey, Plato's Republic, Shakespeare's Hamlet, Rousseau's Confessions, Goethe's Faust, Tolstoy's War and Peace, Dewey's The School and Society. This course is designed to provide leadership in local "Great Books" meetings.

Credit: 2 semester-hours

English 525. The Development of the American Novel

The American novel as a contemporary art form is examined in this course. Beginning with the novels of the early nineteenth century the course traces the rise and development of the Romantic and the Realistic novel and concludes with an example of American Naturalism. Written criticism of five novels is required.

ENGLISH

ENGLISH 528. New Perspectives in World Literature

The point of view of our own democratic culture is surveyed and established in an attempt to see how the literatures of Western Europe, the Middle East, and the Orient have influenced and are influencing modern thinking. Such perspectives are designed to provide adequacy in teaching a world point of view through literature.

Credit: 2 semester-hours

English 530. Dante and His Influence in England and America

Fully two-thirds of the time of this course is devoted to rereading and reassessment of Dante himself in English translation. When Dante's meaning has been revealed, his continued influence from Chaucer through Sackville, Spenser, and Milton to Rossetti, Longfellow, and T. S. Eliot becomes the subject of investigation.

Credit: 2 semester-hours

English 531. Seventeenth Century Literature

This course aims to give students an appreciation of the prose style and intellectual content of the best thinkers and writers of the first "modern" century—Bacon, Burton, Walton, Bunyan, Hobbes, Pepys, Dryden; and of the poetic art of Donne and the "Metaphysicals"—Jonson, Herrick, and the "Cavaliers"—Herbert, Cowley, Vaughan, Dryden, and others.

Credit: 2 semester-hours

ENGLISH 532. The Victorian Novel

This is an intensive study of the novel in Victorian England. A review of the development of the English novel before this period is followed by studies in the works of Dickens, Thackeray, Austen, Eliot, Trollope, Meredith, and Hardy. Novels studied in the high school are treated professionally in class.

Credit: 2 semester-hours

ENGLISH 533. Masters of American Literature

Significant American writers, including Irving, Hawthorne, Poe, Emerson, Melville, Whitman, and Mark Twain, are studied to discover their contributions to American life and to reveal important forces in our national background.

English 534. Medieval Epic, Saga, and Romance

This course deals with the chief medieval epics, sagas, and romances from the literature of England, France, Germany, Ireland, Iceland, Wales, and Italy in modern English translation. Attention is given both to those narratives which reflect the life of a particular country and to those which are international and express more generally the spirit of medieval Europe.

Credit: 2 semester-hours

English 535. Eighteenth Century Literature

Major essayists, poets, dramatists, novelists, and letter writers are read and evaluated in terms of the thought, life, and literary movements of their own time and of their significance for the present generation. Authors studied include Addison, Steele, Defoe, Swift, Goldsmith, Sheridan, Gray, Johnson, Boswell, Cowper, Richardson, Fielding, Sterne, Smollett, and Burke. High-school classics receive special attention.

Credit: 2 semester-hours

ENGLISH 536. Philosophy of Great Literature

By studying one or two masterpieces in a given semester this course aims to help the student develop a plan of study to achieve a systematic understanding of the philosophic world-views and life-views implicit in such works as: Aeschylus's trilogy, The Oresteia; Plato's Timæus; Boethius's Consolations of Philosophy; Dante's Divine Comedy; Shakespeare's Hamlet; Milton's Paradise Lost; Pascal's Pensées; Goethe's Faust; Blake's The Marriage of Heaven and Hell; Dostoievski's Brothers Karamazov; Mann's The Magic Mountain; Hesse's Demian; Henry Adams's Mont St. Michel and Chartres; the Bhagavad-Gita; Lao-tse's The Book of Tao; and Auden's Collected Poetry.

Credit: 2 semester-hours

English 537. American Drama in American Democracy

This course studies the part played by American drama in the evolution of American democracy from the eighteenth century up to the contemporary period.

Credit: 2 semester-hours

English 538. American Literature of Social Problems

This course surveys the American literature which presents social problems during the period from 1800 to 1914 in an attempt to discover the attitudes of the various authors toward these problems.

The works of such authors as Cooper, Lowell, Thoreau, Whitman, Howells, Bellamy, Garland, and Glasgow are studied from this point of view. Enough of the social background of the period is discussed to give the necessary perspective for the discussion of the literature, but the emphasis is placed on the reflection of the problems in literature and not merely on the problems themselves.

Credit: 2 semester-hours

ENGLISH 539. Theatre and Society

Dramatic expression from the time of the ancient Greeks to the present is studied carefully to analyze social, political, and ethical trends as they are reflected in the drama. The members of the course prepare analyses of social trends in contemporary drama. This research provides the basis for reports given during the latter part of the course.

Prerequisite: English 102 or its equivalent.

Credit: 2 semester-hours

SENIOR-GRADUATE COURSES

For more complete descriptions of these courses see the undergraduate catalog.

English 401. The Teaching of English in Secondary Schools

Students are taught to develop and use materials of the classroom: lesson plans and units of work are prepared and presented for cruticism, textbooks are analyzed for training in their use, and bulletin board exhibits and visual education materials are prepared by students for the class. Observation and criticism of teaching in the College High School, and criticism of student compositions are required.

Credit: 3 semester-hours

English 401X. The Teaching of English in Secondary Schools

Students are taught to develop and use materials of the classroom; lesson plans and units of work are prepared and presented for criticism; textbooks are analyzed for training in their use; and bulletin board exhibits and visual and auditory aids are prepared by students for the class.

ENGLISH 402. Survey of British Literature to 1798

This course draws together into a systematic narrative the story of the development of English literature from the beginnings to the romantic triumph of 1798.

Credit: 4 semester-hours

English 404. Survey of British Literature

This course is a continuation of English 402. It takes up the story with the romantic triumph in 1798 and continues it to the present time.

Credit: 2 semester-hours

ENGLISH 406. The Modern Novel

Particular emphasis is given to British and American novels since 1870, and the important tendencies of present-day prose fiction are explored.

Credit: 2 semester-hours

English 407. British and American Biography

Both the old and new types of biography are read and studied in this course, with emphasis upon the nineteenth and twentieth centuries.

Credit: 2 semester-hours

English 408. Creative Writing

Students in this course attempt seriously the standard literary forms in prose and verse.

Credit: 2 semester-hours

English 409. The Teaching and Appreciation of Poetry

This course is both personal and professional. It develops the student's appreciation of poetry as an expression of life and as a form of art, and it considers in detail the aims and methods of teaching poetry.

Credit: 2 semester-hours

English 410. Speech Pathology

This course deals with diagnostic and corrective procedures, causes and treatment for major or pathological speech problems including severe stuttering, voice disorders, laryngectomy, cleft-palate, cerebral palsy, and aphasia. This course is required to teach speech and speech defectives.

Prerequisites: English 208 and 209

ENGLISH 413. Modern Poetry

This course deals with the work of contemporary poets, both British and American.

Credit: 2 semester-hours

English 417. Methods in the Teaching of Speech

In this course a study is made of the objectives of speech education at each grade level; of the problems, approaches, materials, textbooks, and techniques in specific speech areas; of modern trends in instruction; and of the integration of speech with other academic departments of study. This course is required to teach speech.

Credit: 3 semester-hours

English 419. Grammar for Teachers

This course is a study of the basic facts of grammatical relationships in English, and of the current problems of "rules" as opposed to "usage." The primary aim of the course is to acquaint students with the true function of grammar in speech and writing.

Credit: 2 semester-hours

ENGLISH 420. High School Classics

This course is a seminar for prospective student teachers on the problem of teaching literature in high schools. The student reads numerous articles on the "classics" vs. the "moderns" controversy, becomes thoroughly acquainted with the contents and aims of the best high school anthologies currently in use, and builds up a working philosophy for his own teaching. Through the continued practice of reporting and discussion leading, the student is enabled to integrate his total experience in college.

Credit: 2 semester-hours

English 421. The Short Story

This course traces the history of the short story as an evolving literary form, emphasizing the productions of the nineteenth and twentieth centuries.

Credit: 2 semester-hours

ENGLISH 428. The Film and Society

This course considers the impact of the motion picture on our culture. The film is studied and evaluated as a powerful social and educative force, as an art form, and as an entertainment medium. The origin and development of film techniques are treated, and films are

shown at each session, accompanied by analysis and discussion. The scenario as a literary type and the adaptation of prose fiction for film purposes are included in the course content. A laboratory fee of \$5.00 to cover the cost of film rentals accompanies this course.

Credit: 2 semester-hours

English 430. Reading in Secondary Schools

After examination of recent research concerning reading activities at various age levels, the class examines and evaluates methods devised to develop reading skills, to increase vocabularies, and to improve the comprehension of secondary school students.

Credit: 2 semester-hours

ENGLISH 431A and 431B. Shakespeare

This course, in two parts, presents all of Shakespeare's plays as opposed to those taught only in high school, which is the chief concern of English 301B. Here the poet's full development can be seen, providing a complete critical experience. Critical analysis, contentual evaluation, and textual problems are the main areas of concern. Part A deals with tragedies; Part B, the comedies. The chronicle plays are woven into the discussion.

Credit: 2 semester-hours each

English 432. The Development of the Drama

The development of the drama is studied in all periods from ancient Greece and Rome through the Middle Ages and the Renaissance to the beginning of modern drama with Ibsen. The emphasis of the course is placed on the major characteristics of the drama and its necessary complement, the theatre. Representative plays are read and discussed.

Credit: 2 semester-hours

ENGLISH 435. Stagecraft

This workshop course provides training in construction and painting of scenery and lighting the stage. A minimum of twelve clock hours of craft work upon a production of the College or College High School is required for credit in this course.

Credit: 2 semester-hours

English 439. Contemporary American Literature

This course studies the major authors and literary movements in America during the contemporary period. Beginning where the course in *Masters of American Literature* normally ends, it is designed to complete a unit in this subject.

English 33

ENGLISH 442A and 442B. American Literature

This chronological survey reflects the interplay of life and letters in the American scene, examining the political, social, and ethical motivations of the great movements in literature, and reading the separate works in the light of the influences that brought them into being. Part A commences with the Puritan Tradition and ends just as the Civil War is beginning. Part B traces, in life and in literature, the growth of the great democratic tradition in America.

Credit: 2 semester-hours each

ENGLISH 443. Modern Drama

An historical survey of trends, dramatists, plays, and accomplishments from Ibsen to the latest prize plays on Broadway provides background for this course.

Credit: 2 semester-hours

ENGLISH 446. The One-Act Play

This course studies the one-act play as an art form, devoting special attention to plays which are suitable for high school production.

Credit: 2 semester-hours

ENGLISH 448. Choral Speaking

As members of a speaking choir, students acquire skill in interpreting various forms of literature suitable for group treatment.

Credit: 2 semester-hours

Exglish 449. Public Speaking

This is an advanced course in the theory and practice of public speaking. It provides opportunity for training in the more complex speech skills, especially in the techniques of leadership in speech situations and the techniques for making speech responses in cooperative situations.

Prerequisite: English 204 or the equivalent

Credit: 2 semester-hours

ENGLISH 451. Literature and Art in Western Culture

This course deals with the nature of literature and considers its importance as a factor in the development of international understanding. It deals with the relation between the use of language in literature and with the methods of art, since the re-creation of

experience is a function common to both. Through reading the literature which is being read by our neighbors today, both in Europe and in the Western Hemisphere, students are able to participate in a common experience with them.

Credit: 2 semester-hours

English 454. Training the Speaking Voice

This is a course in the study of the problems of speech, the development of a pleasing speaking voice with precision in diction, and the application of speech skills to practical speaking situations.

Credit: 2 semester-hours

English 455. Reading Interests of High School Students

Through wide reading, study and preparation of bibliographies, and establishing criteria for judging current books, the student is prepared to guide the recreational reading of junior and senior high school students. Credit cannot be given for both English 301A and 455.

Credit: 2 semester-hours

ENGLISH 456. Play Direction

This course covers the choosing and casting, as well as directing, of plays. Scenes are directed for class criticism, and a detailed prompt-book of one play is prepared. This course complements English 435.

Credit: 2 semester-hours

English 457. Workshop in Speech Activities

It is the purpose of this course to prepare students to organize and to conduct assembly programs, PTA demonstrations, and similar activities. Class lectures and discussions cover all phases of the director's responsibilities. Groups conduct research on suitable program materials and share their findings with classmates. Each student prepares a list of programs of various types which he could present during a school year.

Credit: 2 semester-hours

English 459. A Survey of Great Chinese Literature

Some of the contributions which have gone into the making of Chinese literature, such as the *Book of Odes* of Confucius, the poems of Li Po and Tu Fu, the Lute Song, and the Dream of the Red Chamber, are considered in this course. Aside from a general survey

English

of the great literature of China special attention is given to English translations of the masterpieces of Chinese literature. There are twenty-four hours of lectures in the morning; after lunch each day a period of forty-five minutes is devoted to informal talks, story-telling, singing of Chinese songs, and showing of motion pictures. During the workshop period individual students work on specific topics under the guidance of the instructor.

Prerequisite: Social Studies 499—Introduction to Chinese Culture

Credit: 3 semester-hours

ENGLISH 461A. Speech Laboratory Practice

After the techniques of interviewing, of preparing case histories, of diagnosing speech disorders, of planning therapies, and of determining prognoses have been taught through lectures and demonstration lessons, each student is assigned one or more persons with speech defects for supervised practice in correcting speech disorders. Credit is given on a laboratory basis, and the course meets three hours weekly. This course is required for the teaching of speech defectives.

Credit: 2 semester-hours

ENGLISH 461B. Advanced Speech Laboratory Practice

This course provides for additional supervised speech correction practice with adults or children with speech disorders. Credit is given on a laboratory basis, and the course meets three hours weekly.

Credit: 2 semester-hours

English 462. Group Discussion and Leadership

Students are taught the principles of democratic discussion and methods for guiding the committee meeting, panel symposium, lecture, and debate forums. Frequent opportunities to apply these principles and methods are given through discussion of topics chosen by the class.

Credit: 2 semester-hours

ENGLISH 463. Audio-Visual Aids in Teaching Speech

The aim of this course is to equip prospective teachers to understand the desirable characteristics; capabilities; and all possible uses of charts, models, projection equipment, and magnetic and disc

recorders available for the teaching of speech. The distribution, cost, operation, servicing, and storing of instruments and of supplies are also considered.

Credit: 2 semester-hours

ENGLISH 464. Speech Psychology

The mental processes involved in acquiring language and in using it in effective oral communication are reviewed. Problems involving psychological principles as they apply to oral teaching, to audience leadership and control, to the alleviation of stage fright, and to the teaching of speech improvement are considered along with the principles of general semantics.

Credit: 2 semester-hours

ENGLISH 465. Speech Arts Activity

Each speech major is required to earn at least one semester-hour of credit in some supervised speech arts activity, such as: playing a major role in a major production; directing a three-act play or its equivalent; giving a public play reading or lecture recital; directing a series of assembly programs; or directing and producing a series of radio programs.

Credit: 1 semester-hour

English 466. Speech Development: Improvement and Reeducation

This course is intended for superintendents, principals, and class-room teachers who have little or no background in speech education. Consideration is given to the following topics: (1) speech development; (2) speech difficulties or problems found on the kindergarten, elementary, and secondary school levels; (3) acquisition of good voice and speech characteristics; (4) use of techniques and materials in classrooms to motivate good speech patterns; and (5) ways of setting up and integrating speech education in school systems. Demonstrations with individuals and groups are made, and students are expected to prepare a practical project.

Credit: 2 semester-hours

English 467. Oral Interpretation for the Teacher

This course is organized as a laboratory to help the teacher develop his potentialities in oral reading. Each student is given many opportunities to read aloud and to participate in informal critiques. Assistance is given in compiling a repertory of selections most useful in daily teaching.

DEPARTMENT OF FOREIGN LANGUAGES

In answer to the growing demand for graduate work, the Foreign Language Department offers a program based on Study Abroad. Through personal contact and experience, the student, thus, can increase both his knowledge and understanding in respect to the people whose language he is preparing to teach. This means that the student will do part of his graduate work at a selected college in a country where the language of his major is spoken. To assist with this program of STUDY ABROAD, the Foreign Language Department yearly offers scholarships for qualifying applicants. These scholarships are sustained by a Student Exchange Fund. Students who are interested in obtaining a STUDY ABROAD scholarship should consult with the Head of the Department for particulars. Sixteen semester-hours of graduate credit are granted for this work. The remaining sixteen hours necessary for the Master's degree are to be selected from graduate courses offered at Montclair. There is also required a final comprehensive examination in the student's major field. The following plan outlines the work for a Master's degree in the Department of Foreign Languages:

Required Courses	Credits
French 502 Study Abroad	16 semester-hours
Spanish 502 Study Abroad Integration 503 Methods and Instruments of Research Electives (To be selected in consultation with the Head of the Foreign Language Department)	16 semester-hours 2 seme ter-hours
Integration courses Graduate courses in other departments of the college	4 semester-hours 10 semester-hours
Tota1	32 semester-hours

Final comprehensive examination in major field of foreign language

FRENCH 502. Study Abroad

Credit: 16 semester-hours

SPANISH 502. Study Abroad

DEPARTMENT OF INTEGRATION

Graduate courses in this department meet one or more of three needs: (1) instruction in Administration and Supervision, leading to the A. M. degree and New Jersey certification for one or more of the positions of Subject Supervisor, General Supervisor, Elementary School Principal, Secondary School Principal, Supervising Principal, and Superintendent; (2) instruction in Personnel and Guidance, leading to the A. M. degree and New Jersey certification in guidance; and (3) instruction in advanced professional courses for the classroom teacher.

In pursuit of the above objectives most graduate courses in the Department of Integration are designed for students who are having or have had teaching experience. Other courses presuppose at least a teaching certificate. Enrollment in graduate Integration courses, therefore, is subject to the following restrictions:

- 1. Students Who Do Not Have a Teaching Certificate—Graduate students in this classification may enroll in undergraduate and senior-graduate (400 level) courses in order to meet certification requirements. They also may enroll in the following graduate Integration courses: 500A, 500B, 500C, 505, 540, 550, 551, and 552. (These courses are designated in the descriptions below by a single asterisk *.) No more than eight semester-hours in courses taken prior to matriculation may be counted toward the A.M. degree.
- 2. Graduate Students Who Possess a Teaching Certificate But Who Have No Teaching Experience—Students in this classification may enroll for any of the courses listed in the previous paragraph and also Int. 500D, 500E, 500F, and 503. (These additional courses are designated below by a double asterisk **.) They may count no more than eight semester-hours in any courses earned prior to matriculation for the A. M. degree.
- 3. Students Matriculated for the A. M. Degree—Graduate students working toward an A. M. degree in either the field of Administration and Supervision or Personnel and Guidance are permitted to matriculate only when they are having or have had teaching experience. Students majoring in Personnel and Guidance are required to have two years of teaching experience before the degree can be conferred.
- 4. Students who plan to remain classroom teachers are not encouraged to seek an A. M. degree in either the field of Administration and Supervision or Personnel and Guidance.

5. Courses in the teaching of elementary school subjects are offered primarily to help graduate students to complete certification in this field. Such courses may be counted toward an A. M. degree only under certain conditions which are outlined by the Integration Department graduate adviser.

I. COURSE REQUIREMENTS FOR THE A. M. DEGREE IN ADMINISTRATION AND SUPERVISION

- A. Graduation from an accredited college or university, a New Jersey teacher's certificate, and two years of teaching experience. (Not more than eight semester-hours will be counted toward this degree prior to the obtaining of this certificate and the beginning of this experience.)
- B. Satisfactory completions of not fewer than 32 semester-hours as follows:

	1.	Int. 500D. Int. 500E. Int. 500F.	irements Basic Educational Trends School Administration I. Functions, Organization School Administration II. Law and Finance School Administration III. Community Relations Methods and Instruments of Research	S. H. 2 2 2 2 2
either	2.	Int. 508. Int. 502.		2 2 2
or	2.	-	lization in Elementary Education Administration of the Elementary School Supervision of Instruction in Elementary Schools Curriculum Construction in the Elementary School	2 2 2
	3.		n Integration t with his adviser's approval will select a minimum	

4. Electives in other departments

numbered 400 or above.

A student may count toward the degree not more than eight semester-hours in other departments of the College. He is encouraged to elect courses which will broaden his interests and background.

of 8 semester-hours in additional Integration courses

0-8

8-16

Total

32

Notes:

 Graduates from New Jersey State Teachers Colleges may transfer not more than eight semester-hours of graduate work to be counted toward this degree upon approval by the Chairman of the Graduate Committee.

^{*}In exceptional cases appropriate substitutions or changes, approved by the department head, may be made in these requirements.

eith or Students who are interested in obtaining principals' or supervisors' certificates may obtain mimeographed lists of the courses which will be counted toward these certificates.

II. COURSE REQUIREMENTS FOR THE A. M. DEGREE IN PERSONNEL AND GUIDANCE

- A. Graduation from an accredited college or university, a New Jersey teacher's certificate, and two years of teaching experience. (Not more than eight semester-hours will be counted toward this degree prior to the obtaining of this certificate and the beginning of this experience.)
- B. Satisfactory completion of not fewer than 32 semester-hours as follows:

1.	Basic Requ	firements (Total of 20 semester-hours)	S. H
	Int. 500F.	Community Relations	2
2	Int. 503.	Methods and Instruments of Research	2 2 2
,	Int. 520.	Principles of Mental Hygiene	2
	Int. 521A.	Educational and Psychological Measurement in	
		Guidance	2 2
ner	Int. 500B.	Advanced Educational Psychology	2
	Int. 550.	Child and Adolescent Development	
	Int. 551.	Principles and Techniques of Guidance	2
	Int. 535.	Vocational Guidance	2
	Int. 536.	Educational Guidance	2 2 2 2 2
	Int. 537.	Social-Moral Guidance	2
	Int. 538.	Group Guidance and Counseling Activities	2
2	Drimory T	lectives (Minimum of 4 semester-hours required)	
۷.		Seminar in Guidance	4
		Organization and Administration of Extra-	7
	1111. 303.	Curricular Activities	2
	Int 530 A	Corrective and Remedial Reading in Secondary	
	1111. 55071.	Schools	2
	Int. 521B	Psychological Tests in Guidance Programs	2 2
	Eng. 466		~
	24118. 100	education	2
3.		Electives (Maximum of 8 semester-hours	
	permitted)		
		related and unrelated subjects in other depart-	
	ments of th		_
		0. Educational Statistics	2
		9. The Family and Its Problems	2
	Soc. St. 44	3. Youth and the Community	2
	Soc. St. 44	4. The Social Bases of Human Relations	2
		0. Modern Economic Problems	2 2 2 4 2 2
		4. Speech Psychology	2
		9. Radio and Sound Equipment in the Classroom	2
	OR any oth	her courses in the graduate program	
		_	

Note:

Total

 Graduates from New Jersey State Teachers Colleges may transfer not more than eight semester-hours of graduate work to be counted toward this degree upon approval by the Chairman of the Graduate Committee.

32

GRADUATE COURSES

*Integration 500A. Basic Educational Trends

This course deals with the historical background which administrators and supervisors, as well as teachers, need in order to evaluate problems and policies in due perspective. It emphasizes the current trends in American society and their bearing upon education. It also considers philosophies concerning the causes of rises and declines in outstanding civilizations and the part education could play among them.

Credit: 2 semester-hours

*Integration 500B. Advanced Educational Psychology

The course covers the various aspects of growth. Individual differences, their measurement, and their bearing on educational practices and principles furnish topics of study and discussion. Principles and laws of learning are reviewed. Some time is given to problems of personality as encountered in school work. The several points of view which have been prominent in the psychology of the past fifty to seventy-five years are examined for their contributions to thinking about human nature.

Prerequisite: An introductory course in psychology.

Credit: 2 semester-hours

*Integration 500C. Recent Trends in Secondary School Methods

This course emphasizes the fundamental principles underlying the technique of teaching on the secondary school level. Some of the topics considered are: organization of knowledge, the logical and psychological aspects of method, developing appreciations, social-moral education, teaching motor control, fixing motor responses, books and verbalism, meeting individual differences, guidance in study, tests and examinations, marks and marking.

Credit: 2 semester-hours

**Integration 500D. School Administration 1: Functions and Organization

This introductory course in educational administration is concerned with general functions and personnel, as well as with the general organization, of public education on local, State, and national levels. It deals also with Federal-State relations, the State and sectarian education, the expanding scope of modern school systems, types and bases of school organization, and professional ethics.

**Integration 500E. School Administration II: Law and Finance

This course acquaints the student with the allied fields of school law and school finance, with special reference to New Jersey. Its topics include basic principles of public school support, taxation, Federal aid, educational finance, legal provisions for school district borrowing, tenure provisions, and rights and duties of school boards and officials.

Credit: 2 semester-hours

**Integration 500F. School Administration III: Community Relations

This course concerns the relation of the school to other educational efforts of the community. It considers the scope and types of agencies and informal influences of an educational nature, and also the agencies and methods by which the best total co-operative effort can be attained. It deals also with methods and plans of publicity. Constant reference throughout is made to New Jersey localities.

Credit: 2 semester-hours

INTEGRATION 502. Organization and Administration of the Modern High School

The following topics are considered: the student personnel, building and revising the high school curriculum, providing for individual differences, making the school schedule, records, the guidance program, pupil participation in government, the extra-curricular program, the health program, the safety program, discipline, library and study hall, cafeteria, the principal's office, and evaluating results.

Credit: 2 semester-hours

**Integration 503. Methods and Instruments of Research

This course is required of all candidates for the Master's degree without regard to their field of major interest. Its purpose is to introduce students of education to research and its practical application to professional problems. The course treats: the nature and types of educational research; methods and techniques of educational research; and the tools used in interpreting statistical data. During the course the student sets up a problem and plans and carries out its solution. It is recommended that this course be taken early in the graduate program.

Prerequisite: Mathematics 400 or equivalent

Integration 504A. Curriculum Construction in the Secondary School

The purpose of this course is to introduce the student to constructive criticism of American culture, to consider the extent to which the secondary school curriculum meets the needs of a changing civilization, and to consider effective means of curriculum construction.

Credit: 2 semester-hours

Integration 504B. Seminar in Curriculum Organization

This course is for students actively engaged in problems of curriculum reconstruction and those who are anticipating committee work in this field. It concerns both the elementary and secondary levels. The work is conducted under seminar or individual guidance, and the hours for the conferences will, therefore, be arranged personally between the student and the instructor. (Integration 504A or Integration 548 is prerequisite to this course.)

Credit: 2 semester-hours

*Integration 505. Organization and Administration of Extra Curricular Activities

The first part of this course considers such general problems of extra-curricular activities as: their growing importance; their relation to the curriculum; the principles underlying their organization, administration, and supervision; and methods of financing. In the second part, an intensive study is made of the home room, the assembly, the student council, clubs, athletics, school publications, and other activities in which the class is especially interested.

Credit: 2 semester-hours

INTEGRATION 508. Supervision of Instruction in Secondary Schools

This course emphasizes the more practical phases of supervision which are met most frequently by those engaged in it. Among the topics are: the set-up for adequate supervision, supervision as encouraging and guiding the growth of teachers and the improvement of educational procedures, the supervisory functions of teachers meetings, discussion groups, general and professional reading, the writing of articles, co-operative curriculum modification, utilization of community resources, and teacher intervisitation.

INTEGRATION 510. Seminar in Secondary Administration and Supervision

In this course the class makes an intensive study of administrative and supervisory problems suggested by the educational events and trends of the year, by the interests and responsibilities of the members of the class, and by educational movements in New Jersey and the country. Each student does an individual piece of research which he reports to the class. This represents advanced work which depends upon previous study or experience in educational administration or supervision. (Prerequisites: Integration 502 or 601A, and 508 or 601B.)

Credit: 2 semester-hours

INTEGRATION 517. Administration of the Elementary School

This course analyzes and evaluates the administrative duties and relationships of the elementary school principal. Particular consideration is given to: building management, effective use of the school plant, sanitation, health service, the library, personnel management, the administration of the curriculum, community relationships, and publicity.

Credit: 2 semester-hours

INTEGRATION 518. Supervision of Instruction in the Elementary School

This course has been planned for those engaged in the supervision of the elementary school, and for those who are preparing for such responsibilities. Principles of classroom supervision are developed and applied to learning situations. Among the more important topics that receive attention are: the nature and function of supervision, the organization necessary for effective supervision, the nature and significance of the teacher's purposes, the methods and techniques of group and individual supervision, the technique of observation, and the supervisory conference.

Credit: 2 semester-hours

INTEGRATION 520. Principles of Mental Hygiene

This course is designed to be a general survey of the principles and practices of mental health with special reference to the mental health of teacher and pupil. It involves a thorough grounding in fundamental principles of mental hygiene with much practical consideration of the mental-health values of instructional programs and procedures. Discussion centers in practical efforts to develop wholesome personalities in our schools.

INTEGRATION 521A. Educational and Psychological Measurement in Guidance

This course deals with fundamentals of educational and phychological measurements in guidance: test theory, statistical concepts, test construction, evaluation, and interpretation. The place of tests in the instructional program is stressed.

Prerequisite: This course is open only to those with teaching

experience.

Credit: 2 semester-hours

INTEGRATION 521B. Psychological Tests in Guidance Programs

This course is designed to familiarize the student with various psychological tests and scales that may be used in guidance programs in the secondary school. The student is given practice in administering many types of group tests. This includes scoring the tests and evaluating the results, with a discussion of ways in which these results may be used. Much time is spent in actual laboratory demonstrations of tests, giving students an opportunity to serve as subjects and as examiners. Class discussion is based upon first-hand information gained through use of the tests, on readings, and on class reports.

Prerequisite: Integration 521A

Credit: 2 semester-hours

INTEGRATION 529. Field Work in Guidance

The aim of the course is to introduce the student to various aspects of guidance through experience in agencies actually dealing with such problems. Students observe and participate in activities of the agencies to which they are assigned and write full accounts of these observations and experiences. Some time is spent in discussing and evaluating these experiences and relating them to the literature of the subject. Prerequisites are: experience in teaching; familiarity with the literature on all aspects of guidance and mental hygiene; and INTEGRATION 500B, 520, and 551. This work is conducted by seminar and individual guidance. The hours for the conferences are arranged personally by student and instructor.

Credit: 4 semester-hours

Integration 530A. Corrective and Remedial Reading in Secondary Schools

This course offers an investigation and interpretation of the reading problems which are found in secondary school classes. A study is made of the causes of reading difficulties, methods of diagnosis, and

techniques of remedial and corrective teaching. Particular attention is given to the selection and adaptation of suitable curriculum materials. Guidance is given to teachers with individual case problems of retarded, normal, and superior pupils. Illustrative material is taken from case studies developed by classroom teachers.

Credit: 2 semester-hours

INTEGRATION 530B. Workshop in Corrective and Remedial Reading in Secondary Schools

This course is designed for students who are directing or instituting programs of remedial and corrective reading and for those who are teaching individuals and classes in such programs. For the most part each student works intensively on his own teaching problem, receiving suggestions and recommendations as the work progresses. Some topics of common interest are: diagnosis, remediation, evaluation, organization and administration of reading programs; use and cost of materials and equipment; relation to the rest of the educational program of the school.

Prerequisite: Integration 530A or the equivalent, or considerable experience in remedial work

Credit: 2 semester-hours

Integration 532. The Supervision and Teaching of Reading in Elementary Schools

The place of reading in the entire elementary school program is analyzed. Attention is given to necessary remedial work for junior high school students. Materials and their use in instructional programs are studied with a view toward increasing power. All growth levels are considered. Good first teaching is of primary concern; however, the analysis and correction of certain reading difficulties constitute an important portion of the course.

Credit: 2 semester-hours

Integration 534. Community Resources for Guidance

This course deals with the various agencies, industries, and institutions available in the surrounding communities for use in guiding students. In addition to becoming familiar with the location and nature of these facilities students learn the techniques for arranging student interviews and visits. Class discussion and personal research are supplemented by field trips.

INTEGRATION 535. Vocational Guidance

This course is intended for counselors in the jumor and enterhigh schools to obtain information about the principles and obtoughly
of vocational education and the techniques of counseling youths who
wish to receive pre-employment training, and for counselors of outof-school groups who are attempting to make readjustments to occupational life. Attention is also given to guidance techniques for joh
preparation and readjustment, the matching of educational and personal abilities to job specifications, the effects of social legislation on
the employment of youths, and a study of techniques used in the
termining occupational needs and occupational changes.

Credit: 2 semester-hours

INTEGRATION 536. Educational Guidance

This course is concerned with the facilities available for education after high-school graduation, the problem of further training for pupils leaving school before completing high school, and the undernot problems of students while in school. A brief survey of colleges and college-admission procedures is made.

Credit: 2 semester-hours

INTEGRATION 537. Social-Moral Guidance

This course is concerned with the non-vocational and non-wardenic personal and social problems of pupils as well as with the development of techniques by which counselors can integrate the pupil's personal life with the mores and customs of society. It also includes a study of the possible services of various community agencies and a study of the counselor's relation to problems of discipline and citizenship education.

Credit: 2 semester-hours

INTEGRATION 538. Group Guidance and Counseling Activities

This course is concerned with the various techniques for helping individual pupils and for using group activities including role-playing as a guidance technique. The group activities considered include those of home rooms, activity periods, occupation courses, student field trips, placement follow-ups, college nights, and correct days

*Integration 540. Recreational and Activity Leadership

It is the aim of the course to furnish each student with practical skills that are of service in dealing with young people of high school age. The practical side is supplemented by a thorough consideration of source material and theory. A partial list of the areas covered in the course follows: how to organize and handle groups, the use of leaders from within the group, indoor games, outdoor games, special hikes, outdoor cooking, camp-fire leadership. Special field trips are provided to observe camps and playgrounds in operation.

Credit: 2 semester-hours

INTEGRATION 548. Curriculum Construction in the Elementary School

This course offers an opportunity to review state and city elementary curricula; to discuss the principles of curriculum construction; to collect new teaching materials for the various subjects; and to evaluate, organize, and grade these materials. Teaching procedures in the use of materials are discussed and evaluated in terms of pupil needs, the objectives set up, and the results obtained. This course offers an opportunity to make a special study of the materials and procedures to be used in the supervision of the language arts.

Credit: 2 semester-hours

* Integration 550. Child and Adolescent Development

This course reviews the general characteristics of child and adolescent development: motor and physiological, social, emotional, language, intellectual, and interests and ideals. The influence of home, school, community, and institutional life on child and adolescent development are considered as well as problems of guidance presented by children in the normal course of development and also those presented by deviations from the normal course.

Credit: 2 semester-hours

* Integration 551. Principles and Techniques of Guidance

Topics included in this course cover: philosophy of guidance, history of the guidance movement, the need for guidance presented by children and adolescents. The methods of gathering useful data are studied, and school records, exploratory activities, tests, inventories, the case study approach, occupational information, and occupational data are treated as well as general methods of guidance with special stress on interviewing and counseling of students.

* Integration 552. The Junior College Curriculum

This course considers admission requirements, required and elective courses, course contents, and supplementary extra curricular and guidance activities of the jumor college. As a background for a consideration of the principles underlying junior college curricula, there is a brief treatment of the beginnings, aims and functions, administrative organizations, and general trends of American junior colleges.

Credit: 2 semester-hours

INTEGRATION 553. Core-Curriculum and Life Idjustment Programs in High Schools

This course concerns two leading educational developments of the last decade after a discussion of their philosophy and historical antecedents. The most significant school programs already adopted to put these developments into practice are presented in detail.

Credit: 2 semester-hours

INTEGRATION 601. Workshop in Education

Section A-Organizing and Administering the School

Section B-Supervising Instruction

Section C-Dealing with and Understanding Youth

The workshop course enables the graduate student to devote his time to an educational topic or school problem of current interest to him and to secure the help of the staff, fellow students, and college facilities in pursuing this study. Members of the workshop may meet together to discuss matters of common concern in respect to the current school situation. In addition, the student works independently on his own subject and at times meets with a small group interested in the same area.

In the past, students have worked on topics in such areas as these: problems in administration, guidance programs, extra-curricular activities, school philosophies, problems in supervision, curriculum planning, and community relations. The success of the workshop depends much upon the student knowing what he wants to accomplish in sex weeks, the procedure being flexible enough to support his purposes. He must have his proposed problems for study approved by the Director of the Workshop before he enrolls for the course.

The workshop is offered only in the summer session. It is divided into three sections, as noted above. The student may enroll for iour semester hours of credit or for two, the four calling for two periods of scheduled time in the course daily, the two calling for one period of scheduled time in the course. The student taking the course for two credits enrolls for one of the three fields: A—administration, B—

supervision, or C—guidance. The student taking it for four credits may do all the work in one of these three fields, or he may enroll for two hours credit in one and two in another.

Credit: 2 or 4 semester-hours

Integration 602. Seminar in Guidance

This course is designed to provide a laboratory situation for the exploration and study of the present practices with respect to the three major phases of the guidance program. Usually this seminar is given in conjunction with either Vocational (Integration 535), Educational (Integration 536), or Social-Moral (Integration 537) Guidance. The major portion of the time is spent on field trips, in private investigation, and in research.

Prerequisites: Integration 551, and have taken or be taking in conjunction one of the courses of major emphasis listed above

Credit: 4 semester-hours

INTEGRATION 603. Principles and Practices of Research

The purpose of this course is to introduce students of education to research and its practical application to professional problems. The course treats: the nature and types of educational research; methods and techniques of educational research; and the tools used in interpreting statistical data. During the course the student selects a problem and begins the research which will be completed the second semester.

Prerequisite: Mathematics 400 or equivalent

Credit: 4 semester-hours

SENIOR-GRADUATE COURSES

Most of the following courses are set up to serve graduate students as well as College seniors. To carry graduate credit, the course in question must be approved by the candidate's adviser. In all instances, Integration 406, Integration 409, and Integration 410 will be accepted as work for either of the two graduate degrees in this department. For a more complete description of these courses see the undergraduate catalog.

Integration 400A. Principles and Philosophy of Secondary Education

This course evaluates educational objectives, techniques, procedures, and organizations in relation to the needs and demands made upon the school by society and by the student.

INTEGRATION 400B. Practicum in Secondary Education

This course follows the student teaching. It makes the new of the countered by the students in the preceding twelve weeks, as well as similar problems reported by students in former years.

Credit: 2 semester-hours

INTEGRATION 406. Educational Sociology

This course deals with the application of membrane problems. The school is treated an part of the community, and the various social forces that affect the school and its administration are considered.

Credit: 2 semester-hours

INTEGRATION 407A. Television in Education Workshop: Programming and Production

This is a laboratory course designed to develop the techniques, methods, standards, procedures, and criteria pertaining to the special place of television in education. Through the utilization of studio equipment together with the resources of all the academic departments of the college, student potentialities, campus life, and the community, students receive experience in planning, developing, and producing, television programs of educational value. Actual training is given in the use of standard television equipment on campus, and field trips are made to local television laboratories and studios.

Credit: 2 semester-hours

INTEGRATION 407B. Television in Education Workshop: Classroom Utilization

This course is designed to give training in the following areas of television education: types of programs best suited for classroom use; practical applications of programs emanating from commercial stations; various subject areas in which television might be used such as language, science, art, social studies, etc.; script writing; coordination of program and school schedules; and the possible use of educational television stations and how they best serve surrounding communities. Students are also introduced to the operation of both sending and receiving television equipment so that they may understand program possibilities and limitations.

INTEGRATION 408. Selection and Utilization of Audio-Visual

Sources, selection, and evaluation of audio-visual aids are studied in this course. Techniques in developing individual reference catalogs of audio-visual aids are stressed.

Credit: 2 semester-hours

INTEGRATION 409. Radio and Sound Equipment in the Classroom

This course trains teachers and school executives in the use of radio programs, amplifying systems, recording equipment, and record players. Actual practice is given in the use of these educational aids. Problems of script-writing, microphone and recording techniques, and program directing are considered.

Credit: 2 semester-hours

INTEGRATION 410. Teaching Materials Workshop

This course is for those persons who wish to study advanced problems in the utilization and administration of audio-visual materials. Individual research is stressed, and there is an opportunity to work out individual projects.

Credit: 2 semester-hours

INTEGRATION 411. Educational Motion-Pictures Workshop

This course includes various phases of the planning and production of educational motion pictures. Students receive actual experience in scenario writing, costume research, set designing, lighting, photography, editing, and sound recording. During the course an educational film is produced as a class project.

Credit: 2 semester-hours

INTEGRATION 420A and 420B. The Community Centered School

This course deals with the development and functions of the school as a community resource. Students assemble and interpret data relating to actual school and neighborhood situations. Consideration is given to the social framework in which the school operates; racial and national minorities; intercultural education; truancy and delinquency; and the discovery and utilization of community resources. The use of school personnel and facilities to deal with racial problems is treated in light of the data assembled.

Integration 421A and 421B. Leadership of Activities and Services in Community Education

This course is designed to prepare teachers and other to give leadership to community-education activities. Starting with the assumption that the school should serve as a community center, members of the course proceed to learn about the various antivities and programs that can be initiated and carried on by the school. Consideration is given to programming, utilization of space and personnel, and care of equipment. Techniques for organizing and directing special programs such as scouting, folk dancing, crafts, field trips, production of films, forums and debates, etc., are included.

Credit: 4 semester-hours

Integration 422A and 422B. The Organization, Administration, and Supervision of Programs in Community Education

This is a workshop type of course which emphasizes the integration of school, social, recreational, and adult education programs. The course presents a survey of currents in community education as adopted and implemented by boards of education throughout the country. Principles, policies, practices, and problems related to the administration and supervision of community education programs are surveyed. The following types of programs are considered: summer playgrounds, day camps, after-school centers, evening centers, youth and adult recreation centers.

Credit: 4 semester-hours

INTEGRATION 430. Techniques for Improving Reading Abilities

This course deals with the diagnosis and remedial treatment of difficulties in reading. A study is made of the basic principles underlying desirable reading experiences and their application in guiding children to success in learning to read adequately.

Credit: 2 semester-hours

INTEGRATION 440. Camping Education

The purpose of this course is to familiarize the students with camping and outdoor education as educational methods utilized by the schools of America. The aims and methods of camping are studied, and consideration is given to the communities that have nerve comping and outdoor education programs in operation.

When given through the Part-Time Division of the College, a week-end experience at the New Jersey State School of Conservation

in the Stokes State Forest is required for credit in this course.

INTEGRATION 441. Conservation Education

This course is designed to give teachers and prospective teachers a background for organizing and teaching conservation on various grade levels. The need for conservation, the various kinds of natural resources, and some of the modern methods for using and renewing these resources are considered. Field trips, laboratory experiences, visual aids, printed materials, and visiting specialists combine to make this a useful introductory course for all teachers.

Credit: 2 semester-hours

INTEGRATION 442. Practicum in Camp Leadership

In this course the student has an opportunity to learn the techniques of camp leadership through practical experience, guided group study, and discussion. The practical experience comes through serving as a camp counselor in an actual camp situation.

Credit: 2 semester-hours

INTEGRATION 444. Practicum in Conservation Education

This course is designed to provide teachers and supervisors with a background of experience and knowledge which will enable them to organize and to conduct conservation education programs in their own communities. Using an extensive library of conservation educational material, students formulate teaching units, lists of teaching aids, and projects suitable for use in their own communities. Participation in conservation projects with the children in the demonstration camp furnishes a practical background for research and discussion.

Prerequisite: Integration 441, Conservation Education, or Science 412, Field Studies in Science: Biological, or Science 413, Field Studies in Science: Physical, or the equivalent

Credit: 2 semester-hours

INTEGRATION 450. Psychological Foundations of Personality

This course is concerned with the physical, mental, and cultural bases underlying the formation of the personality of the individual. Emphasis is placed upon the implications for the teacher in developing understanding of the formation and measurement of personality.

INTEGRATION E460. Public School Program of Studies

This title is given to a group of courses designed to meet requests from public school systems desiring help in curriculum reconstruction. Each of the parts of this general course will be given on a cooperative inter-college basis, and taught by specialists in the various fields selected from the faculties of the cooperating State Teachers Colleges. Certificates of credit will be issued by the college sponsoring the work.

Part I. 460A—Principles of Curriculum Revision Part II. 460B—Workshop in Curriculum Revision

Part III. 460C—Organization and Evaluation of Curricula

Part IV. 460D—The Social Studies Program of Studies Part V. 460E—The Language Arts Program of Studies

Part VI. 460F—The Science Program of Studies

Part VII. 460G—Workshop in Materials and Methods of Science Education

Part VIII. 460H—The Mathematics Program of Studies

These cooperative inter-college courses are provided only when the requests from the public school authorities of the county, municipality, or community are such as to require their use. No undergraduate may elect this course unless he is actively engaged in teaching. Not more than six semester-hours in these courses may apply on a graduate degree at the New Jersey State Teachers College at Montclair.

Credit for each part: 2 semester-hours

INTEGRATION 461. The Junior High School Curriculum

Recent trends in the development of the junior high school curriculum and the relation of the curriculum to the aims, function, and organization of the junior high school are the topics covered in this course. Curriculum patterns in representative junior high schools are studied and evaluated. An opportunity is given to each student to develop units of work for junior high school subjects in the major of his choice.

Credit: 2 semester-hours

INTEGRATION 480. Field Science for Elementary Teachers

Working in a natural setting, rather than an artificial laboratory, this course stresses firsthand experience with natural phenomena and suggests what can be done to convey an understanding of these things to the elementary-school student. In developing an understanding of natural resources consideration is given to such areas as rocks and

minerals, plant and animal life, astronomy, weather, and all outdoor phenomena, both physical and biological. If desired, collections are made under supervision, and some latitude is provided for individual specialization in some phase of field science. The student needs no formal scientific background for this course. Methods of teaching on the elementary-school level as well as subject-matter content are included. Simple demonstrations, experiments, collections, acquisition of free and inexpensive materials, reference publications, and the most recent methods and trends in field-trip procedure are considered.

Credit: 2 semester-hours

ELEMENTARY EDUCATION COURSES

Although the New Jersey State Teachers College at Montclair is engaged primarily in preparing secondary school teachers, during the present shortage of teachers in the elementary schools it was deemed expedient to offer courses in the field of elementary education for the undergraduates of the college leading toward certification to teach in these subjects. Under certain conditions courses in elementary education may be used for graduate credit. Students should check with their advisers in this connection.



The New Look-Classroom, Laboratory, Studio Building Now Under Construction

DEPARTMENT OF MATHEMATICS

The graduate courses in mathematics are designed to meet the needs of teachers in service. They offer the opportunity for further study in pure mathematics, in the applications of mathematics to related fields, and for the study of current problems in the teaching and supervision of mathematics.

A candidate for the Master of Arts degree in mathematics should consult the Chairman of the Mathematics Department before matriculation, since the choice of graduate courses should be adjusted to the preparation acquired in undergraduate work. Of the thirty-two graduate credits required for the degree, eighteen or more (the exact number depends upon the candidate's previous preparation) must be taken in the Department of Mathematics.

A candidate who does not have a certificate to teach mathematics must have thirty undergraduate credits in college mathematics as a prerequisite for graduate work. In any case, a candidate who wishes to matriculate for the A.M. degree in mathematics must have had courses at least through the differential and integral calculus.

REQUIREMENTS IN MATHEMATICS DEPARTMENT

I. At least 18 semester-hours of graduate courses in mathematics are required. These courses must bear catalog numbers equal to or greater than 500, unless permission is granted the candidate by the Chairman of the Mathematics Department to take courses with numbers less than 500 for graduate credit.

The graduate courses in mathematics are grouped into the following three divisions:

A. Pure Mathematics

These are courses in advanced mathematics which form an extension of the required work for a mathematics major. They include MATHEMATICS 503, 504, 511A, 511B, 512, 515, 516A, 516B, 517, 521, 523, 524, and 532.

B. Applied Mathematics

These courses emphasize the applications of mathematics to related fields of work. They give an extension and generalization of secondary mathematics together with certain phases of college mathematics which are employed in solving problems arising in the physical, biological, and social sciences. The principal aim is to supply background informa-

These courses are: Mattin maries 505, 500A, 500B, 500A, 510B, 510A, 510B, 510C, 528, 531, and 601.

C. Teaching and Supervision of Mathematics

The principal items considered are the current problems arising in the teaching and supervision of mathematics, the organization and construction of course syllabi, administrative problems, and the use of current mathematical literature. The chief purpose is to enable the teacher to select more suitable teaching material, to improve teaching techniques, and to use effectively various types of teaching aids. These courses are: Mathematics 501A, 501B, 501C, 506, 507, 529, 530, and 540.

II. Requirements in the Integration Department

- A. Integration 503, Methods and Instruments of Research, for two semester-hours is required of all students.
- B. In addition, four semester-hours must be selected from these courses: Integration 408, 409, 500A, 500B, 500C, 504A, 505, 521A, 521B, 535, 536, 537, 538, 551, 553.

III. Elective Courses

A sufficient number of graduate courses having 500 or 600 numbers must be taken to make up a total of thirty-two semester-hours.

In lieu of four of the required thirty-two credits, the candidate may write a thesis giving the results of some study in the field of mathematics or its teaching. This study must be made after consultation with the Chairman of the Mathematics Department and under the sponsorship of a member of the mathematics faculty. Plans should be made to have such a study in its final form and approved by the Mathematics Department by April 1st of the year in which the degree is anticipated. The preparation of such a dissertation does not relieve the candidate of any of the required credits in mathematics.

Special permission must be obtained from the Chairman of the Department to receive credit for courses with numbers under 500.

IV. Final Examination

A final examination in mathematics is given all candidates prior to the conferment of the degree. This examination is general in nature and is designed to test the candidate's maturity of thought in mathematics and in the teaching of mathematics.

GRADUATE COURSES

Mathematics 501A. Administration and Supervision of Mathematics, Part I

This course is concerned with the problems met in organizing and supervising the teaching of mathematics. The topics considered are the functions and qualifications of the supervisor of mathematics, in-service training of teachers, demonstration lessons, professional attitude and preparation of teachers, department meetings, selection of texts, current problems, research, and the basis for determining objectives. Some attention is paid to efficient methods of securing mastery of skills, the development of power in problem solving, and the organization of testing programs.

Credit: 2 semester-hours

Mathematics 501B. Administration and Supervision of Mathematics, Part II

Particular emphasis is placed on such current problems of the high school as the organization of a four-year course in general mathematics, revision of the present college preparatory course, proposals for revision of, or changed emphasis in, the course in plane geometry, as well as suggestions for including some analytic geometry and calculus in the senior high school. Reports of various commissions on secondary mathematics are considered.

Credit: 2 semester-hours

Mathematics 501C. The Teaching of Advanced Secondary School Mathematics

This course presents the best modern practices in teaching advanced algebra, trigonometry, solid geometry, and analysis in the last two years of the senior high school. Topics include: introducing trigonometry, teaching applications of trigonometry, variations in the sequence of topics, recent trends in the curriculum, the aims of teaching solid geometry, the elimination of certain subject matter and proofs, the use of algebra and trigonometry in solid geometry, making algebra thinking rather than manipulation, applications of advanced algebra, and the use of the function concept in unifying the mathematical knowledge of the student. A study is made of outstanding experiments in teaching these subjects and methods of adapting the material to the abilities and interests of the students.

MATHEMATICS 503. Foundations of Algebra

Careful consideration is given to the fundamental concepts and postulates which form the foundation of algebra. Upon this basis the development of our number system is traced through the application of algebraic operations. Algebraic analysis supplies the criteria for the possibility of geometric constructions. Also a brief survey is given of the general theory and use of rational integral functions.

Credit: 2 semester-hours

Mathematics 504. Modern Algebra

The modern algebraic theories of groups, rings, and number fields are studied. Particular attention is given to polynomials over a field, matrices and determinants, and the properties of linear independence and linear dependence.

Credit: 2 semester-hours

MATHEMATICS 505. Consumer Mathematics

A survey is made of consumer problems which lend themselves to mathematical treatment. Attention is given to the placement and the techniques of teaching such material in the intermediate grades and in the junior high school. The principal topics included are: the cost of supporting a family, the cost of owning or renting a home, problems of insurance, annuities, social security, investments, the quality and cost of consumer goods, seasonal trends, business cycles, and indices of business activity.

Credit: 2 semester-hours

MATHEMATICS 506. Current Research in Secondary Mathematics

Trends in the teaching of secondary mathematics (grades 7-14) and current trends in general education which affect the teaching of secondary mathematics are carefully studied. The influence of these trends on the syllabi and textbooks in secondary mathematics during the last several decades is systematically traced. A critical perusal of the literature in this field is required to reach worth-while recommendations for the improvement of teaching secondary mathematics.

Credit: 2 semester-hours

Mathematics 507. The Teaching of General Mathematics

Reports, recommendations, and mathematics programs for high school students who have other objectives than a college preparation, are studied. Topics included are: characteristics of non-academic students, mathematics for intelligent citizenship, vocational mathematics, remedial arithmetic, laboratory mathematics, source materials, classroom teaching techniques, and integration with other subject-matter areas as in the core curriculum.

Credit: 2 semester-hours

MATHEMATICS 509A. A Critical Interpretation of Mathematics in the Senior High School, Part I

An opportunity is here offered for an investigation and interpretation of the algebra and geometry of the secondary school. The meaning and use of secondary mathematics are stressed, rather than the methods of teaching. Among the topics discussed are: algebra as a thought process and not a mechanical operation, types of thinking in algebra and geometry, fundamental laws of arithmetic, algebra as generalized arithmetic, geometrical interpretation of algebra, the function concept in algebra and geometry, the changing scope and subject-matter of Euclidean geometry, limits and incommensurables, and integration (i. e., correlation and fusion) of all secondary mathematics.

Credit: 2 semester-hours

MATHEMATICS 509B. A Critical Interpretation of Mathematics in the Senior High School, Part II

Among the topics discussed are: the development and use of the limit concept in secondary mathematics; the introduction of analytic geometry and calculus; the geometry of space; permutations and combinations; the elements of probability and statistics. The subject matter is adapted to the secondary level and treated from the professional viewpoint.

Credit: 2 semester-hours

MATHEMATICS 509C. A Critical Interpretation of Mathematics in the Junior High School

The aim of this course is to give teachers a deeper insight into the subject-matter usually taught in the seventh, eighth, and ninth grades. Among the topics considered are: the nature of graphs, an intuitive and experimental approach in geometry, the arithmetic and algebra for social use and interpretation, approximate measures and mensuration, and integration with other subject fields. The course is open to all junior and senior high school teachers and those elementary school teachers who have had two years of high school mathematics.

MATHEMATICS 510A. Applications of Mathematics Social Studies

Fundamental topics common to both mathematics and social studies are carefully examined including ways and means of integrating the atopics in the secondary school curriculum. They include: measurement in social science, presentation of social data, use of index numbers, distribution of wealth and income, utilities, use of charts and graphs, theory of investment, probability, insurance, and amunities.

Credit: 2 semester-hours

MATHEMATICS 510B. Applications of Mathematics: Science, Art. and Music

This course surveys the mathematics of optics, electricity, meteorology, biology, chemistry, physics, music, and similar topics. Various physical and biological laws including the laws of growth, especially the applications of certain periodic functions, are studied. The chief purpose is to supply the teacher with background material that may be used to enrich the teaching of mathematics and to encourage further study of these allied fields.

Credit: 2 semester-hours

Mathematics 510C. Applications of Mathematics: Geography, Astronomy, and Navigation

An opportunity is here offered for mathematics teachers to become acquainted with the mathematics of mapping, astronomy, and navigation closely related to the algebra, solid geometry, and trigonometry taught in high school. A study of spherical geometry and trigonometry leads to topics in mathematical astronomy and geography and to navigation. The discussion includes such topics as: latitude and longitude; time and the calendar; map projections; the making of star maps; sizes and distances of the sun, moon, planets, and stars; weighing the earth and moon; and relativity.

Credit: 2 semester-hours

MATHEMATICS 511A. Foundations of Geometry

A careful study is made of the fundamental postulates and basic principles underlying Euclidean synthetic and projective geometries. Past and present trends in this field and the resulting modifications are considered in connection with the historical background of each. Finally, the development of the subject is briefly traced through certain fundamental groups of associated theorems and their generalizations.

MATHEMATICS 511B. Non-Euclidean Geometry

The development of Hyperbolic-Non-Euclidean and of Elliptic Non-Euclidean geometry is carefully traced. A brief survey of the historical development of each is given. This course is designed for teachers and students of mathematics who desire a better perspective of the field of geometry.

Credit: 2 semester-hours

MATHEMATICS 512. Methods of Approximation

This course deals with the determination of functions from observed experimental data. Among the topics considered are: finite differences, symbolic operators, differencing, interpolation formulae, the Gamma function, and the Euler-MacLaurin formula. The course is designed to show the nature of mathematics as an applied science.

Credit: 2 semester-hours

MATHEMATICS 515. Differential Equations

This course is a continuation of the calculus considered from a new view-point. Various applications of differential equations and their standard methods of solution are fully treated in this course. Among the topics included are: linear differential equations of the first degree and of the first and higher orders, linear equations of the nth order with constant coefficients, linear equations of the second order, exact and total differential equations, simultaneous equations, numerical approximation, and partial differential equations.

Credit: 2 semester-hours

MATHEMATICS 516A. The Theory of Functions of Complex Variables

The fundamental properties of complex numbers and the elementary properties of functions of complex variables are developed. These include the properties of mapping, line integrals, Cauchy-Goursat Theorem, and conformal mapping. The practical applications of the theory are stressed by the use of illustrative examples.

Credit: 2 semester-hours

MATHEMATICS 516B. The Theory of Functions of Real Variables

The fundamental properties of real numbers and the elementary properties of functions of real variables are systematically developed. Among the topics considered are: continuity, differentiability, integrability, algebraic and transcendental functions, hyperbolic functions, and infinite series.

MATHEMATICS 517. The Theory of Numbers

This course offers a systematic treatment of certain fundamental properties of numbers. It includes such topics as: properties of integers; prime numbers; composite numbers; factorization; relatively prime numbers; properties of congruences and their solutions; fundamental theorems of Fermat, Euler, Wilson, Gauss, etc.; primitive roots of a congruence; quadratic residues; and certain types of Diophantine equations.

Credit: 2 semester-hours

Mathematics 521. Analytical Mechanics

The fundamental basic principles of this course are Newton's laws of motion, whose applications and consequences are carefully considered in the study of such topics as: the composition and resolution of forces, the statics of a particle and of a rigid body, forces acting upon a body, friction, straight line motion, curvi-linear motion, work and energy, moment of inertia, etc. The need and usefulness of mathematics for the explanation of physical phenomena are clearly shown.

Credit: 2 semester-hours

MATHEMATICS 523. The Theory of Probability

In this course the applications of the theory of probability to life insurance, statistics, mechanics, and genetics are stressed. Special attention is paid to the implications of probability in secondary school mathematics, and to the teaching of probability in the senior high school. The ideas of choice in combinations and permutations are developed. The intuitive ideas and the classic paradoxes in the historical development of the theory are also considered. Additional topics considered are: continuous probability, the normal probability curve, and geometric probability. It is assumed that students taking this course have an understanding of college algebra and the elementary ideas of calculus.

Credit: 2 semester-hours

MATHEMATICS 524. Statistical Inference and Sampling Theory

In this course the student considers the planning and execution of a statistical study. Among the topics considered are: moments and moment generating functions; binomial, Poisson, and normal distributions; the general theory of sampling: student's distribution; chisquare distribution; analysis of variance and co-variance; statistical control; and the design of experiments. The development of statis

tical reasoning is an important aim of the course. Applications are given to industrial, scientific, and social data.

Prerequisite: Mathematics 408

Credit: 2 semester-hours

MATHEMATICS 528. Mathematics Materials for Student Activities and Club Programs

This course analyzes some of the large amount of material avail able for individual and club activities in mathematics. Mathematical recreation, plays, topics for essays or club programs, and popular books on mathematics are studied. The material considered varies from elementary arithmetical recreations for the elementary school to topics involving advanced mathematical ideas. Topics considered are: recreations; arithmetical, geometrical, and logical problems in arrangement, polyhedrons and crystallography, classical problems of antiquity, cryptography, magic squares, topological and unicursal problems.

Credit: 2 semester-hours

MATHEMATICS 529. Curriculum Construction in Mathematics

This course is conducted as a workshop or seminar in construct ing curricula in mathematics. The chief objective of the course is cooperation with those communities which are planning changes in their courses of study. Among the topics considered are: the selection of aims, a study of recent courses of study in mathematics, the reports of various commissions, and other research pertinent to the questions at issue.

Credit: 2 semester-hours

MATHEMATICS 530. Mathematical Materials and their Applications in the Teaching of Mathematics

In this course the student considers the adaptation and use of multisensory materials to motivate and improve the teaching of high school mathematics. Particular attention is given: to the equipment needed for the modern mathematics laboratory and how it may be used effectively; to plans for the extra-curricular activities in mathematics, such as mathematics clubs and assembly programs; to such visual aids as pictures, lantern slides, motion pictures, and bulletin board exhibits; and to the books, periodicals, and pamphlets needed for the school and the teacher's library.

MATHEMATICS 531. Survey of Higher Mathematics

The principal aim of this course is to give the student some insight into the nature and content of various fields of higher mathematics. This includes a discussion of the basic structure and framework of the following branches of higher mathematics: foundations of logic, higher algebra and algebraic theories, theory of groups, synthetic and analytic projective geometries, differential geometry, N-dimensional geometry, topology, vector analysis, and calculus of variations.

Credit: 2 semester-hours

MATHEMATICS 532. Projective Geometry

The methods of synthetic and analytic projective geometry are compared and used to emphasize the fundamental concepts of Enclidean geometry. Emphasis is placed upon the dependence of many common properties and theorems of Euclidean geometry upon the properties of lines, parallelism, perpendicularity, similarity of figures, and the definition of distance. Other topics considered include: the principle of duality, perspective and projective correspondences, the theorems of Desargues and Pascal, nets of rationality, homogeneous and nonhomogeneous coordinates, and conics.

Credit: 2 semester-hours

MATHEMATICS 540. Research Seminar in Mathematics

This seminar is designed primarily for those students who select some problem of interest in either the subject matter or the teaching of mathematics for intensive study and research. A written report is required of each student.

The course is open to all students who have had at least eight semester-hours of graduate work in mathematics. It is required of all students who wish to write a master's dissertation in this field.

Credit: 2 semester-hours

MATHEMATICS 601. Workshop: Current Problems in the Mathematics Field

This course is conducted as a workshop for the solution of such actual problems in the teaching of mathematics as: courses in mathematics for the general and for the specializing student; integration of mathematics with other courses; revision of subject-matter in particular fields, such as in plane geometry; and research problems in specific units of work. The class meets for conferences, reports, and lectures. Individual conferences between the instructor or consultant and each individual member of the class are held by appointment.

SENIOR-GRADUATE COURSES

For more complete descriptions of these courses see the undergraduate catalog.

Mathematics 401. The Teaching of Mathematics in Secondary Schools

The techniques of teaching different units of work in the secondary school are studied, and the application of these techniques in a demonstration class is observed by the student. Eventually, the student participates in organizing and preparing teaching material; in conducting class activities; in constructing, administering, and evaluating tests; in tutoring; and in other teaching activities.

Credit: 3 semester-hours

MATHEMATICS 401X. The Teaching of Mathematics in Secondary Schools

Various methods and techniques of teaching different units of work in secondary school mathematics are studied. Out of his own experience and that of others, the student is required to formulate and discuss effective teaching procedures. Units of work are discussed as to content, organization, presentation, teaching techniques, and evaluation of achievement. Criteria for the selection and use of modern texts and auxiliary teaching materials are included.

Credit: 2 semester-hours

MATHEMATICS 402. Applications of Mathematics

The student is taught how to use and adjust those modern instruments of precision which can be used to motivate the teaching of mathematics in the junior and senior high school. Included among these are the slide rule, transit, sextant, planimeter, plane table, solar telescope, and astronomical telescope with equatorial mountings. Such early instruments as the astrolabe, hypsometer, baculum, and optical square are also considered.

Credit: 4 semester-hours

MATHEMATICS 404. Readings and Lectures in Mathematics

Lectures are given upon advanced topics in mathematics and on those phases of mathematics which are finding new applications, especially as they are related to the secondary field.

MATHEMATICS 405. History of Mathematics

As a study of elementary mathematics emphasis is placed on the historical growth of arithmetic, algebra, and geometry. The development of fundamental concepts and operations involving the use of symbols is studied with emphasis placed upon noteworthy contributions and the influence of leading mathematicians. A by product is the motivating effect of historical information on the teaching and learning of mathematics.

Credit: 2 semester-hours

MATHEMATICS 406. Solid Analytic Geometry

A review and extension of the theory of determinants, a study of lines and planes in space, of space coordinates, transformation of coordinates, loci in space, the sphere, and of quadric surfaces are considered in this course. The study of the general quadratic equation in three variables, invariance under motion, and the classification of numerical equations completes the course.

Credit: 2 semester-hours

MATHEMATICS 407. Advanced Calculus

After a brief review of the fundamental concepts of elementary calculus, more advanced topics are considered which include the theory of limits, continuity, the general theorem of mean value, infinite series, partial differentiation, and multiple integrals.

Credit: 2 semester-hours

MATHEMATICS 408. An Introduction to Elementary Mathematical Statistics

This first course covers the usual topics in statistics using calculus as a major tool in the derivation of formulæ.

Credit: 2 semester-hours

MATHEMATICS 410. Mathematics of Finance

This course introduces the student to the elementary theory of simple and compound interest and leads to the solution of practical problems in annuities, sinking funds, amortization, depreciation, stocks and bonds, installment buying, and building and loan associations.

MATHEMATICS 412. Modern Geometry

This course presents a treatment of modern synthetic geometry on an advanced level. It is based on a fundamental framework of plane geometry and maturity of teaching in the field of mathematics. Topics treated are loci and geometric constructions; fundamental theorems of Ceva, Menelaus, Stewart, Euler, Ptolemy, etc.; homothetic figures, the harmonic range, noteworthy lines and points, systems of circles, and inversion.

This course is not open for credit to students who have received credit for Mathematics 301.

DEPARTMENT OF SCIENCE

The teacher of secondary school science is faced constantly with the problem of maintaining his professional competence with respect to recent advances in the fields of science and science education.

The past two decades have brought forth an astonishing array of new discoveries in biology, chemistry, physics, and other branches of science. Entirely new scientific points of view have to be considered by a teacher who wishes to keep his classroom practices up to date with the most recent findings as reported in current newspapers, magazines, and books.

The unusual growth of enrollment in secondary schools has brought the science teacher numerous difficult problems of science education which require a more scholarly background than has been necessary in previous decades. It is clear that the demands to be made upon the science teacher in the near future will greatly exceed those of any previous decade. A thorough knowledge of science and secondary education is necessary to professional success and promotion.

Other factors operate to multiply the problems of high school science teachers. The rapid growth of work in science in elementary schools and the extraordinary growth of junior high school science preparation foreshadow a fundamental reorganization of the senior high school science program. This work is now well under way in many sections of the country. The courses offered here are designed to help the science teacher meet these changing needs.

Prior to matriculation in the Science Department for the Master of Arts degree the student should complete a subject matter background of thirty semester-hours of college science distributed in the areas of biology, chemistry, and physics. Deficiencies must be made up prior to the conferment of the A. M. degree. A minimum of eighteen semester-hours of graduate credit work in science is required. Science 401 will not be accepted toward meeting this eighteen semester-hour departmental requirement. The student's work program is prepared in cooperation with the science advisor. Any changes in the student's work program are made only with the written approval of the science adviser.

COURSE REQUIREMENTS FOR THE A. M. DEGREE IN SCIENCE

I. Integration Requirements

Each student must take Integration 503, Methods and Instruments of Research, and four additional semester-hours in Integration courses.

II. Science Requirements

A. The candidate must complete three four semester-hour courses from among the following:

Biology 402, 407, 408, 409, 509 Chemistry 405, 406, 407, 408, 411, 412, 508, 509, 510 Physics 402, 405, 406, 407, 408, 409, 411, 510, 512 Science 405, 410

12 semester-hours

B. The candidate may elect two to three semester-hours from among the following:

Biology 501, Chemistry 501, Science 401D

C. The candidate may elect up to six semester-hours from among the following:

Biology 412, 413, 414, 508 Chemistry 413 Physics 513 Science 411, 412, 413, 414, 415, 418

Minimum for B and C-6 semester-hours

D. The candidate must take Science 505, Science Seminar for Junior and Senior High Schools.

2 semester-hours

E. With the consent of his adviser, the candidate may elect from among Science courses, Integration courses, or other courses on the 400-500 level.

Maximum possible for E-6 semester-hours

BIOLOGY

GRADUATE COURSES

BIOLOGY 501. The Teaching of Biology in Secondary Schools

This is a seminar and research course designed to give opportunity for study of the best methods and practices being used in the teaching of secondary school biology. Major topics of discussion are: aims of secondary school biology, course content, functions of textbooks, testing, laboratory exercises and demonstrations, and the collection and use of suitable and available laboratory materials. A study is made of recent research studies in the field of biology teaching.

Prerequisite: 16 semester-hours of work in biology

Credit: 3 semester-hours

BIOLOGY 508. Social Applications of Biology

This field-study course offers to teachers of science an opportunity to gain first-hand knowledge of the uses made of biological principles in industry and in modern laboratories. Field trips are designed to cover such varied interests as public health and hospital routine laboratories, medical botanical research laboratories, and the inspection of model industries developing biological products.

Prerequisite: 12 semester-hours of work in biology

Credit: 4 semester-hours

BIOLOGY 509. Field Studies of Flowering Plants

The emphasis of this course is placed upon the methods of identification of higher plants and the ecological factors affecting the growth and development of these plants. Plants in their winter conditions are considered first. As the season progresses, the emphasis changes from the identification of woody to herbaceous forms. Plant communities of various types are observed, and the factors influencing their development are discussed. Field trips are taken to such typical habitats as the Pine Barrens, Troy Meadows, Raritan, and others.

Prerequisite: General botany

Biology 402. Mammalian Anatomy and Histology

A study is made of the gross structure of a typical mammal and of the structural peculiarities of its various tissues. Both the anatomical studies and histological studies included in this course are pursued with functional significance strongly emphasized. This course prepares the student for the study of human physiology.

Prerequisite: 8 semester-hours of work in zoology

Credit: 4 semester-hours

BIOLOGY 407. Comparative Embryology

A study is made of the stages in development and factors influencing the development of different animal types, particularly the vertebrates. Students in this course follow carefully the development of the chick through the earlier stages.

Prerequisite: 8 semester-hours of work in zoology

Credit: 4 semester-hours

BIOLOGY 408. Biological Technique

This course is designed to furnish the prospective teacher of biology with the technical details necessary to enable him as a secondary school teacher to handle successfully biological materials and experiments and demonstrations in which these materials are employed.

Prerequisites: 8 semester-hours of work in zoology and 4 semester-hours of work in botany

Credit: 4 semester-hours

BIOLOGY 409. Human Physiology

A study is made of normal and abnormal physiology based on previous study of mammalian anatomy and histology. In addition to an analysis of the part played by organs and tissues in carrying out the essential functions of the body, special attention is given to problems of hygiene and sanitation.

Prerequisite: A course in vertebrate anatomy or Biology 402

Credit: 4 semester-hours

BIOLOGY 412. Genetics

This course considers the scientific basis of the gene concept and its support in experiment from Mendel's work to the present allegations of the Lysenko school. Documents of some of the milestones in the history of the science are studied, and the adherence to scien-

tific method is carefully noted. The wide uses of the science in plant and animal improvement and the discoveries related to man's heredity make an integral part of the study. The course helps the tencher of biology or social studies to discriminate between what is scientifically known and what is political philosophy in genetics. Laboratory exercises supplement lectures and discussion.

Prerequisite: A course in college biology

Credit: 2 semester-hours

BIOLOGY 413. Economic Botany

The consideration of the importance of plants and plant life to the world in general and to man in particular is the principal aim of this course. The economic importance of bacteria, fungi, and other lower plants is considered as well as that of the seed plants.

Prerequisite: One year of general botany

Credit: 2 semester-hours

BIOLOGY 414. Field Ornithology

New Jersey is one of the best areas in the East for the study of birds. On the Montclair campus alone, over 130 species have been observed. This course deals primarily with the identification and natural history of birds. A variety of habitats is visited so that one can become acquainted with the habits and requirements of this unusually well-adapted vertebrate type. Migration, methods of attracting and protecting birds, the value of birds, and other problems are also considered.

Prerequisite: A year of biology or the equivalent

Credit: 2 semester-hours

CHEMISTRY

GRADUATE COURSES

CHEMISTRY 501. The Teaching of Chemistry in Secondary Schools

This course satisfies the requirements in the teaching of chemistry for the limited secondary certificate. A study is made of the objectives, recent trends, methods of presentation, courses of study, lesson planning, instructional aids, and subject matter of high school chemistry.

Prerequisite: 16 semester-hours in chemistry

CHEMISTRY 508. Advanced Organic Chemistry—Biochemistry

In this course a study is made of the composition of living organisms, their nutritional requirements, their mechanism for promoting and regulating chemical action, and their metabolism of foods. A laboratory study is made of the components of foods, enzyme action, isolation of proteins, etc., blood and urine analysis.

Prerequisites: Chemistry 405 and 406, organic chemistry

Credit: 4 semester-hours

CHEMISTRY 509. Advanced Inorganic Chemistry

This course offers opportunity for intensive and systematic study of the elements in the light of the periodic classification. Selected theories and principles of inorganic chemistry and some of their applications are studied in detail. A study is made of types of compounds. Directed use of chemical literature is an important part of this course. Individual experimental work in the laboratory consists chiefly of preparation and purification of inorganic compounds and testing for impurities in the products.

Prerequisite: A course in quantitative analysis

Credit: 4 semester-hours

CHEMISTRY 510. Food Inspection and Analysis

A study is made of the composition of commercial food products, the laws governing purity and marketing of foods, methods of analysis of foods and cosmetics, and the judging of foods for quality. Trips are made to food laboratories and food processing plants.

Prerequisites: Organic chemistry and quantitative analysis

Credit: 4 semester-hours

SENIOR-GRADUATE COURSES

CHEMISTRY 405. Organic Chemistry, Part I

The course covers the chemistry of carbon compounds and gives increased facility and experience in manipulating complicated chemical apparatus. It treats of the role of chemistry in life processes, including the synthesis and adaptation of carbon compounds in industry, in medicine, and in daily living. The first semester's work covers the chemistry of simple chain compounds and includes fats and carbohydrates.

Prerequisites: Chemistry 101 and 102, general college chemistry

CHEMISTRY 406. Organic Chemistry, Part II

The work of this course covers the chemistry of multiple functional chain compounds, the ring compounds, vitamins, hormones, and the application of these compounds in industry, in foods, and in medicine.

Prerequisites: Chemistry 101 and 102, general college chemistry

Credit: 4 semester-hours

CHEMISTRY 407. Advanced Quantitative Analysis

This course is adapted to the needs and preparation of students. The student, after consultation with the instructor, may select analyses from the following: general or special types of oxidation-reduction; gravimetric methods; colorimetric methods; use of organic reagents in analyses; electrometric titrations; conductimetric titration; spectrographic methods of analysis; electrodeposition of metals; and special methods of analysis.

Prerequisites: General college physics and one semester of quantitative analysis, or special permission of the instructor

Credit: 4 semester-hours

CHEMISTRY 408A. Industrial Chemistry, Part I

The purpose of this course is to enable science teachers to understand the type of chemical industries in the State of New Jersey and the nature of their problems. A survey is made by lectures, reports, and trips to plants of the chemical industries in the State. This section of the course stresses the importance and the characteristics of chemical industries, the various unit operations used by the industries to carry out chemical reactions, the controls used to insure quality, organization for research, and the type of workers employed.

Prerequisites: General and organic chemistry, or special permission of the instructor

Credit: 2 semester-hours

CHEMISTRY 408B. Industrial Chemistry, Part II

This course is a study of the chemical industries of the metropolitan area utilizing the methods outlined in Chemistry 408A. Also, a study is made of the economics of chemical industry, chemistry and industry in general, and the effects of chemical discoveries upon living conditions.

Prerequisites: General and organic chemistry, or special permission of the instructor

CHEMISTRY 411. Physical Chemistry, Part I

This course, the first half of a year's work in physical chemistry, deals with gases, liquids, crystals, physical properties and electrolytes, colloids, thermochemistry, and homogeneous and heterogeneous equilibria.

Prerequisites: Chemistry 101 and 102, general college chemistry, Chemistry 202, analytical chemistry, and Physics 101 and 102, general college physics

Credit: 4 semester-hours

CHEMISTRY 412. Physical Chemistry, Part II

This course deals with electrical conductance, electrolytic equilibrium, electromotive force, electrolysis, polarization, chemical kinetics, photo-chemical reactions, atomic structure, molecular structure, and radioactivity.

Prerequisites: Chemistry 101 and 102, general college chemistry, Chemistry 202, analytical chemistry, and Physics 101 and 102, general college physics

Credit: 4 semester-hours

CHEMISTRY 413. Atomic Structure and Atomic Energy

This is a lecture course designed to familiarize the student with a modern conception of the structure of matter and to acquaint him with some significant aspects of atomic energy. Some of the topics studied include the following: discoveries leading to knowledge of the structure of the atom; isotopes; nuclear fission; nuclear reactions; chemical versus atomic explosions; the chain-reacting pile; production of plutonium; detection and measurement of nuclear radiation and incendiary effects of atomic explosions; atomic energy for peace-time uses; radioactive isotopes in agricultural, biological, and chemical research; and availability of materials for atomic energy.

Prerequisites: General college chemistry and general college physics, or special permission of the instructor

PHYSICS

GRADUATE COURSES

PHYSICS 510. Advanced Problems in Photography

This course is intended to meet the needs of the camera club teacher and the hobbyist. The course includes negative and positive alterations, toning, printing processes, studio portraits, color photography, and photomicrography. The student is expected to submit prints of exhibition quality for public showing.

Prerequisites: General college physics, general college chemistry, and a first course in photography

Credit: 4 semester-hours

Physics 512. Modern Physics

This course is a survey of recent experimental research in physics and of the newer theories concerning nuclear physics and electricity. Such topics as atomic spectra, radioactivity, artificial transmutation of the elements, and cosmic rays are discussed.

Prerequisites: General college physics, general college chemistry, and a course in electrical measurements

Credit: 4 semester-hours

Physics 513. Nuclear Radiation

A study of the nature of radiations is made. Particular attention is given to radiation measurement technique. The course is concluded with a study of health physics as related to radiation dosages and their effects. Some attention is paid to disposal of radioactive wastes, radiation protection, and safety precautions.

Prerequisites: General college physics, general college chemistry, and a course in electrical measurements

SENIOR-GRADUATE COURSES

Physics 402. Advanced Electricity

The most important aims and purposes of the course are as fol lows: (1) to provide a substantial background of training in the fundamental laws and principles governing the generation and use of electricity; (2) to develop skill in manipulating laboratory and demonstration apparatus; and (3) to learn the basic principles of alternating current circuits.

Prerequisites: Physics 101 and 102 and Chemistry 101 and 102

Credit: 4 semester-hours

PHYSICS 405. Light and Optical Instruments

Topics included for study in the classroom and laboratory are: the propagation of light; emission and absorption of radiant energy; reflection, refraction, polarization; spectrum analysis; photometric measurements; photoelectric cells; measurement of high temperatures; characteristics of illumination, modern illuminants; and industrial and domestic uses of light.

Prerequisites: General college physics and a course in electrical measurements

Credit: 4 semester-hours

Physics 406. Astronomy

This course is designed to acquaint the student with the celestial sphere, celestial motions, and the phenomena associated therewith; to make him aware of the principles of astronomy. It consists of a survey of the solar system, practical problems in locating and identifying celestial bodies, a consideration of light and matter, the basic laws of motion, the physical-chemical properties of the sun and stars, stellar scales and maps, the measurement of distance, the cosmology of the universe, the history of astronomical concepts, and the regularities, irregularities, and evolution of the solar system.

This study is aided by the use of selected films and slides, actual sky study and field trips, the use of the sextant, octant, transit, spectroscope, sky maps, planetaria, and by telescopic observations.

Prerequisites: General college physics and chemistry

PHYSICS 407A. Aviation, Part I

This course deals with the historical development of aviation, air traffic rules, airworthiness regulations, pilot certification, types of aircrafts, aircraft structures, principles of aerodynamics, lift, drag, stability, motions of an airplane, piloting, motorless flight, and aircraft engines. Flight experience is made available as a part of this course.

Prerequisite: General college physics

Credit: 2 semester-hours

PHYSICS 407B. Aviation, Part II

This course continues the study of the topics considered in Physics 407A and also develops an understanding of power performance, propellers, engine instruments, and flight instruments. Flight experience is made available as a part of this course.

Prerequisite: General college physics

Credit: 2 semester-hours

PHYSICS 408. Advanced Aviation

This course consists of the study of navigation; meteorology as applied to flight operations; radio communications; flight and navigational radio aids; instrument flights; jet, turbojet, and rocket flight; and recent advancements in aviation.

Prerequisite: Physics 407

Credit: 4 semester-hours

Physics 409. Introduction to Radio Communication

This course deals with direct and alternating current circuits; construction and operation of detectors; characteristics of audio and radio frequency amplifiers; vacuum tubes; and comparisons of amplitude modulated and frequency modulated transmission and reception.

Prerequisites: General college physics and a course in electrical measurements

Credit: 4 semester-hours

PHYSICS 411. Photography

This course consists of laboratory work and field work supplemented by lectures and demonstrations. Emphasis is placed on physical principles in the construction of cameras, projection printers,

tanks, and filters. Special attention is given to chemical principles in the development of films and paper, toning, intensification, and reduction.

Prerequisites: General physics and general chemistry or per-

mission of the instructor

Credit: 4 semester-hours

SCIENCE

GRADUATE COURSES

Science 505. Science Seminar for Junior and Senior High Schools

This course is designed to afford opportunity for graduate students in science, supervisors, and science teachers: (1) to investigate research in science education; (2) to organize science experiences and science information with teaching materials for the public schools. Each member of the group selects a project. This project must be presented to the science faculty and graduate students for evaluation.

Prerequisite: Certification to teach science or matriculation for the A. M. degree in science

Credit: 2 semester-hours

SENIOR-GRADUATE COURSES

Science 401D. The Teaching of Aviation in Secondary Schools

This course covers the study of State aviation programs, texts, bulletins, free material for school use, demonstration equipment, tests, working models, visual aids, and references needed to teach aerodynamics, aircraft engines, meteorology, navigation, and aircraft communication in high schools. Field trips to airports and aviation industries are included.

Credit: 2 semester-hours

Science 404. Problems in the Teaching of Science

When a student has completed the assignment in student-teaching in a public high school in the State of New Jersey and has accumulated some experience with the problems of high school science instruction, he returns to the college campus for an intensive study of a limited number of problems in a single field of science.

Prerequisites: See the undergraduate bulletin for required courses in biology, chemistry, and physics

Science 83

Science 405. Field and Laboratory Studies in Science

This integrated course is designed to show the relationship in the geological rock formations, the types of soil, water patterns, plant communities, and animal inhabitants in northern New Jersey, and the effects on human occupations. The field trips are for the purpose of gathering data and materials for intensive work in the laboratory. The experiments are designed to give the student acquaintance with the science of common but possibly unstudied features of the landscape; e. g., soils are reproduced in profile and examined microscopically, physically, and chemically; water from a variety of sources is tested for biological and chemical impurities; the census of plant and animal inhabitants of typical areas is associated with relevant factors in the environment. Discussions precede and follow the field and laboratory work to establish the probable history of the area and to suggest the probable trend, whether advancing or retrogressing. of its development. Stress is placed on the kinds of human control in specific communities which would best serve their progress.

Students are asked to submit an analysis of the geological and biological features of some known community, based on the skills and principles learned. Some other objectives of the course include an understanding of the organization of school museums for learning purposes, the making of ecological maps and illustrating them with photographs and diagrams, and the techniques of ecological field trips. Two instructors, a chemist and a biologist, collaborate in giving this course.

Prerequisite: Proficiency in biology and chemistry

Credit: 4 semester-hours

Science 410. Junior High School Science Demonstrations

This course covers the methods of experimental instruction in grades seven, eight, and nine. A detailed study is made of about three hundred demonstrations.

Prerequisites: General college chemistry, college physics, and a course in general biology

Science 411. Problems in Field Studies in Science

In this course each student selects a phase of field science in which he does advanced research under the guidance of the instructor. Plant ecology, bird-life, pond life, fungi, tree diseases, and insect life are a few of the areas from which the student may choose.

Prerequisites: Science 405, Field and Laboratory Studies in Science, or its equivalent plus at least 12 points in biology

Credit: 2 semester-hours

Science 412. Field Studies in Science: Biological

Extensive instruction in the identification and natural history of fauna and flora is given in this course. Students examine the ecology of plant and animal communities (terrestrial and aquatic) and relate such communities with man's use of natural resources. The relation of field activities to present school curricula is considered. No previous science courses are required.

Credit: 2 semester-hours

Science 413. Field Studies in Science: Physical

Emphasis in this course is given to local and New Jersey geology, minerals, soils, and waters, with emphasis on the chemical and physical aspects of soil and water. Field trips are taken through the Kittatinny Mountains and to the Delaware Water Gap.

Credit: 2 semester-hours

Science 414. Conservation of Plants and Animals

The social, economic, and ecological implications of plant and animal conservation are considered together in this course. Discussion periods are interspersed with field trips to forests and wildlife management areas. Co-operating experts from State and Federal agencies bring special contributions in their fields. Visual aids are used extensively.

Credit: 2 semester-hours

Science 415. Conservation of Soil and Water

The social, economic, and ecological implications of soil and water conservation are considered together in this course. Discussion periods are interspersed with field trips to selected areas. Outside experts bring special contributions in their fields. Visual aids are used extensively.

Science 418. Three Centuries of Science Progress

This course includes a study of fundamental world changes that have resulted in the past three hundred years from scientific discoveries. Topics considered are the following: a background of the beliefs and practices of the age; the processes of thought which produced skepticism; the experiments devised to disprove ruling opinions; the new concepts arising from fresh evidence; and the social, economic, and philosophic adjustments following the discoveries. Stress is given to the nature of scientific inquiry, its cumulative nature, its desire for freedom, and how to judge the probable fruitfulness of a research problem. The role which the man of science occupies in the world today is contrasted with his counterpart in earlier centuries. Class demonstrations of historical experiments, readings in the original literature, and lectures and discussions are employed by the three or more science teachers of the course.

Credit: 2 semester-hours

Science 419. Field Science and Conservation

In this course students study phases of field science which are related to conservation. The components of soil and water which produce good crops are studied. Students gain an understanding of farm practices by visiting several nearby farms. Forest and wood-lot management, wildlife preservation, mineral resources use, and other important areas in which science influences the conservation of natural resources are investigated.

Credit: 2 semester-hours

Science 420. Water Supply and Conservation Problems

This course is designed to provide students an opportunity to do an extensive study of the water supply problems in New Jersey and surrounding states. A study of water tables, rainfall, irrigation, drainage, flooding, water shed management, stream pollution, and soil erosion, give students a background for understanding the problems involved in domestic and industrial use of water. State and regional water conservation projects such as Incodel, Passaic Valley Flood Control, and Stoney Brook Watershed are studied. Teaching materials are supplied, and methods of presenting this material to elementary and secondary pupils are demonstrated and discussed.

DEPARTMENT OF SOCIAL STUDIES

The teacher of social studies works in a field the boundaries of which are constantly changing and expanding. The necessity for constant study, especially with regard to the contemporary social situation and its problems, presses upon every secondary school teacher of the social studies. The Social Studies Department at Montclair intends to provide for such teachers courses of an advanced character which will help to keep them abreast of the changes in a changing world. It also will provide advanced courses for those teachers who wish to increase their preparedness in specialized secondary school subjects. Finally, it aims to provide for the teacher-in-service an opportunity for keeping informed concerning the changing techniques and problems of teaching the social studies. Selections from advanced courses of the sort just described lead to the Master's degree in the social studies.

In order to qualify for the Master's degree in social studies, candidates will either prepare a thesis or pass an oral examination based upon a selected field of research.

REQUIREMENTS IN THE SOCIAL STUDIES DEPARTMENT

In general, a candidate must offer thirty-two hours of graduate credit, at least eighteen of which must be in the field of Social Studies, six in the field of Integration, and six or eight (depending upon the number of social studies credits required) elective credits in fields closely related to the social studies. The following are the more specific requirements:

- I. All candidates must take a seminar course, either Social Studies 502 or Social Studies 518. A candidate may offer both these seminars since the subject-matter content, aside from the instructions in research, is different in both courses.
- II. The remaining social studies courses should represent a diversified choice from among the following fields:

Ancient and Medieval History
Social Studies 421, 422, 423, 425, 426, 427, 473

Modern European History
Social Studies 414, 420, 441, 448, 457, 458, 493, 506

United States History
Social Studies 408, 413, 419, 438, 447, 471, 474, 475, 480

The Americas

Social Studies 415, 417, 435A, 435B, 440A, 440B, 453A, 453B

International Affairs

Social Studies 412, 434, 442, 451

Economics

Social Studies 446, 450A, 450B, 456, 517, 522, 523, 524

Sociology

Social Studies 429, 439, 443, 444, 455, 476, 477, 479, 494

Political Science

Social Studies 402A, 402B, 407, 430, 433, 437, 515

Philosophy

Social Studies 404, 470, 478

Educational Techniques

Social Studies 401, 472

Credits may also be chosen to the amount of six from the offerings in Field Studies, China Institute, Workshop in Citizenship Education, and United Nations Institute.

III. All candidates must take the course, INTEGRATION 503— Methods and Instruments of Research, and four elective credits chosen preferably from the following:

Integration 500B, 504A, 505, 550, 440

IV. Elective credits in fields other than the social studies should be chosen from among the following:

Integration 408, 410

English 402, 404, 432, 442A, 442B, 533, 536, 537

Business Education 409, 412, 407A, 407B

Geography 406, 408A, 408B, 409, 410, 411, 412, 413, 414A, 414B, 416, 418, 419, 420, 503, 504, 509.

V. Master's Thesis or Research Paper

All candidates are required to complete either a Master's thesis or a Master's essay on a question or problem which has been chosen by the candidate for his specialization. The candidate is given an oral examination on the paper before a seminar of members of the Social Studies Department. Complete directions for this requirement may be obtained from the head of the department.

In the case of candidates offering undergraduate majors from institutions other than Montclair, it may be necessary to make more specific requirements with respect to choices among social studies and elective credits than is indicated above in order to fill gaps which may exist in the undergraduate major.

GRADUATE COURSES

Social Studies 502. The Origin and Development of the American Constitution

This course is an intensive study of the origin and framing of the Constitution of the United States. It aims to search out the roots and influences that determined our basic political institutions. The seminar method is employed and attention is given to the techniques of historical research and historical writing.

Credit: 2 semester-hours

Social Studies 506. The British Empire from 1783

This course deals with the evolution of the British Empire from the period of the old Colonial system to the present British Commonwealth of Nations. The rise of dominion government, the forces of anti-imperialism, and the various solutions suggested from the improvement of imperial relations are stressed.

Credit: 2 semester-hours

Social Studies 515. History of Political Thought

The major theories of representative political philosophers concerning the nature, functions, organization and sovereignty of the state are studied in this course. Among those discussed are: Plato, Aristotle, Cicero, Thomas Aquinas, Machiavelli, Luther, Calvin, Bodin, Hobbes, Locke, Spinoza, Montesquieu, Rousseau, Hume, Bentham, J. S. Mill, Burke, Hegel, Marx.

Credit: 2 semester-hours

Social Studies 517. Money and Banking

An opportunity is provided for an analysis of the monetary and banking principles and practices basic to modern economic organization. Consideration is given to the various theories of money, the relation of money to prices, banking systems and their operation, and the nature and significance of credit. Special attention is directed to an examination of the functioning of the Federal Reserve System in relation to the gold standard, a managed currency, stability, inflation and deflation.

Social Studies 518. Recent Trends in American History (1918 to the Present)

Without attempting to reach final conclusions, this course analyzes the major problems which have influenced American life since the First World War. The new position of the nation in world affairs, the modifications of the old economic order, the progress of social and political change are all surveyed. This course, like Social Studies 502, is conducted by the seminar method and may be taken instead of that course. As the subject matter is different, except for the instruction in methods of research, both courses may be taken.

Credit: 2 semester-hours

Social Studies 522. The Development of Economic Institutions and Ideas

This course deals with the changing principles, institutions and ideas which determine the character of economic society. The doctrines of the more important schools of economic thought such as the Classical, Historical, and Institutional groups are emphasized, and the teachings of the Mercantilists, Physiocrats, Adam Smith, Malthus, Ricardo, Marx, Henry George, Veblen, Hobson, Commons, Keynes, and others are examined in relation to the important problems of money, credit, prices, business cycles, foreign and domestic commerce, property, wages, the nature of wealth and value, and economic planning.

Credit: 2 semester-hours

Social Studies 523. The Economics of the Business Cycle

The purpose of this course is to consider the nature of business cycles and their impact on the national economy, to survey business cycle theories, and to analyze the significant proposed methods of control for the purpose of developing a desirable public program conducive to economic stability.

Credit: 2 semester-hours

Social Studies 524. The Economics of Public Fiscal Policy

This is a course for the mature student interested in the effect of government tax policies on the national economy. Consideration is given to the various theories of justice in taxation: the incidence and shifting of the tax burden; the constitutional aspects of government finance; fiscal policy and full employment; taxation and economic inequality; the economics of public borrowing; and management of the national debt. Particular emphasis is placed on the conflicting

issues which have arisen from the increasing encroachment of public finance on both business and the consumer due to war and recurrent depressions. Attention is also given to such special programs as the Marshall Plan and aid to underdeveloped economic areas.

Credit: 2 semester-hours

SENIOR-GRADUATE COURSES

For more complete descriptions see the undergraduate catalog.

ANCIENT AND MEDIEVAL HISTORY

Social Studies 421. Oriental Civilization

This course presents the important contributions to civilization and social progress made in antiquity in three great centers of the Near East: Egypt, Mesopotamia, and Crete.

Credit: 2 semester-hours

Social Studies 422. Greek Civilization

The aim of this course is to present the development of Greek civilization from the earliest period to the beginning of the Christian era.

Credit: 2 semester-hours

Social Studies 423. Roman Civilization

This course traces the social changes in Rome from the earliest times to the end of the Western Roman Empire. The rise and fall of the empire are discussed with relation to their importance in medieval civilization.

Credit: 2 semester-hours

Social Studies 425. Medieval Civilization

This course covers the period from the decline of Rome to about 1500. It first emphasizes the blending of barbarian cultures with that of the Roman resulting in feudalism as a way of life. After that a study is made of the gradual evolution of towns, a trade and industrial economy on a broadening scale, the emergence of monarchial states, an intellectual awakening with the founding of universities, all of which leads finally to our modern system of national states.

Social Studies 426. Medieval History to 1498

In the first part a study is made of the factors contributing to the political breakdown of the imperial principle, such as the growth of Christianity, barbarization of the West, and the expansion of Islam. The second part is devoted to the developments in Western Europe after 1200, stressing political movements, medieval commerce, guilds, growth of towns, and cultural changes.

Credit: 4 semester-hours

Social Studies 427. Ancient History to 378 A. D.

The first part of this course covers the Oriental period and the Greek through the Periclean Age. The second part covers the Hellenistic period from the rise of Philip of Macedon, stressing attempts at federalism.

Credit: 4 semester-hours

SOCIAL STUDIES 473. The Arts in Western Civilization

This course is designed to show how the social, economic, political, and religious movements in Western Civilization influenced the aesthetic expression of Europe from the Golden Age of Greece to the Rise of the Industrial Revolution. Greek, Roman, Byzantine, Gothic Baroque, and Rococo art, architecture, and music are discussed and illustrated.

Credit: 2 semester-hours

MODERN EUROPEAN HISTORY

Social Studies 414. Modern England

This course deals both with the historical periods as such and with the influences of the political, economic, and social forces in the English literature of the century. The Napoleonic era, political reform, factory reform, the humanitarian movement, the Irish question, the ministries of Gladstone and Disraeli, and the interpretation of politics and literature are considered.

Credit: 2 semester-hours

SOCIAL STUDIES 420. European Outlook

This course is designed to provide the background for understanding Europe today. The reality of ideological struggles between free and totalitarian countries is emphasized as a main source of present-day conflict.

Social Studies 441. Economic History of Europe

The study of Europe from an economic point of view is particularly important in the light of present European problems and their relation to world-wide conditions. This course is a survey of the economic life and development of Europe from the emergence of the ancient civilizations to the beginning of the modern economic world.

Credit: 2 semester-hours

SOCIAL STUDIES 448. The British Dominions

This course deals with the role Canada, Australia, New Zealand, and South Africa are playing in present world affairs. Special emphasis is given to Canada and its dual position as an American state and a part of the British Empire.

Credit: 2 semester-hours

SOCIAL STUDIES 457. Development of Russia

Factors which have shaped the evolution of the Russian people, such as Byzantinism and the Greek Orthodox faith, the Synod, Tartar state organization, the Mir, Westernization from Peter to Lenin, Slavophilism, and dialectic materialism, are emphasized.

Credit: 2 semester-hours

SOCIAL STUDIES 458. Russia as a World Power

An analysis of Russia's relations with China, Iran, Turkey, the European continent, England and the United States is presented. Marxist world policy, as interpreted by Kautsky, Plekhanov, Jaures, Bukharin, Trotsky, Lenin, and Stalin, is described.

Credit: 2 semester-hours

Social Studies 493. Western Europe Since World War I

This course presents an outline of the rise of communism and fascism and the reaction of the western democracies to these movements. The Civil War in Spain, the Munich Pact, the failure of the League of Nations, diplomatic events of the World War II era, United Nations problems, the North Atlantic Pact, and special problems of western defense are emphasized. An evaluation of western Europe's significance for the United States is attempted.

UNITED STATES HISTORY

SOCIAL STUDIES 408. A History of New Jersey

This course is designed to assist teachers in acquiring a better knowledge of their state. A study is made of the history of New Jersey from the point of view of the social, political, economic, and cultural development of the people from the beginning of settlement to the present. Special attention is given to the geographical and industrial aspects of the state, and the place of New Jersey in the national setting.

Credit: 2 semester-hours

SOCIAL STUDIES 413. Economic History of the United States

The great trends and movements in agriculture, finance, commerce, manufacturing, transportation, and industrial relations are traced from their beginnings in the colonial period to their contemporary expressions in the present crisis.

Credit: 2 semester-hours

SOCIAL STUDIES 419. American Political Biography

This is the study of the life and influence of the leading figures in American political and social history. It is the aim here to show the relation of each of these characters to the times in which he lived and to point out how he influenced the trend of American life. The study includes such leaders as Washington, Jefferson, Hamilton, Webster, Lincoln, Cleveland, T. Roosevelt, and Wilson.

Credit: 2 semester-hours

Social Studies 438. The Literature of American History

A brief description of the material available for the study of American history is followed by class practice in finding and using the promary sources of some of the facts commonly taught in schools

Credit: 2 seme: ter-hours

Social Studies 447. Diplomatic History of the United States

The purpose of this course is to show how we have become gradually conscious of our world interests and responsibilities, and the important role we have come to play in international politics.

Social Studies 471. The United States Since World War I

This course surveys the major problems, economic, social, political, and international, which have marked our national development since the end of the first World War. It is intended especially for social studies seniors as a preparation for the second year of secondary school American history as provided for in the recently adopted state requirements.

Credit: 2 semester-hours

Social Studies 474. America in Transition

This course surveys rapidly the results of the Civil War and then emphasizes the major trends, economic and social, which have made modern America. It is intended as a more advanced study than that which is made in the undergraduate course. The period covered is from 1867 to around 1914.

Credit: 2 semester-hours

Social Studies 475. The History of American Thought

This course considers the influential thinking in America from the Mayflower Compact to the Marshall Plan to see how certain ideas or trends of thought have grown out of situations and have in turn helped to mould the course of our history. The student should gain an appreciation for the American contribution to world culture, and an examination is made of outworn stereotypes which exist today. The writings and discourses of important American thinkers are considered including Mather, Paine, Jefferson, Emerson, Thoreau, and Veblen.

Credit: 2 semester-hours

Social Studies 480. Social History of the United States

This course presents a study of the social and cultural aspects of American history. As such, it supplements but does not take the place of economic and political history. The course considers population movements and growth, rural and urban social problems, status of women, family life, utopian ventures, mass media of communication, amusements and recreation, and human rights.

THE AMERICAS

Social Studies 415. Latin-American Relations of the United States

This course aims to provide the information necessary to a clear understanding and accurate appreciation of the political, economic, and social relations that have developed between us and our Latin-American neighbors.

Credit: 2 semester-hours

SOCIAL STUDIES 417. American Archaeology

This course shows that the New World of the early discoverers was in reality far from new. The course discusses the prehistoric pueblo dwellers and early mound builders. The truly remarkable civilizations of the Mayas and the Incas are examined and compared with that of the Aztecs. North American tribes of Indians are also studied in order to evaluate their significant cultures.

Credit: 2 semester-hours

*Social Studies 435A. The Americas: A Contemporary Political, Economic, and Cultural Survey, Part I

This course deals specifically with the relations of the United States and the Caribbean countries. Attention is given to the dependencies of the United States in this region as well as to the independent republics. Twentieth century political, economic, and cultural developments of this region are stressed in light of the inter-American system.

Credit: 2 semester-hours

*Social Studies 435B. The Americas: A Contemporary Political, Economic, and Cultural Survey, Part II

This course deals specifically with the twemieth century political, economic, and cultural life of the South American nations. The role which the South American states play in world affairs is stressed. Attention is given to post-World War II developments and adjustments in South America.

Credit: 2 semester-hours

*Social Studies 440. A and 440B. The Development of Central and South America as Colonies and Nations

The first part of this course surveys the period of exploration and settlement in the colonies of South and Central America. The second

^{*} Note: Courses 435A, 435B, 440A, and 440B are independent mure of none is prerequisite for another.

part studies the experiences of the various Latin-American nations under different forms of government.

Credit: 2 semester-hours each

Social Studies 453A. The Development of Mexico and the Caribbean States

It is intended to show in this course the historical development of Mexico and the Caribbean nations in terms of their political, cultural, social, and economic progress in order to develop understandings and appreciations for their cultures and present-day problems. The relationships of their problems to those of the other American nations are stressed and placed in proper perspective.

Credit: 2 semester-hours

Social Studies 453B. The Development of Canada

This course is devoted to the study of the historical background, geographical environment, governmental organization, economic behavior, and social conditions of the northern neighbor of the United States. Its professional objective is to provide the understanding and appreciation necessary to the student and teacher who may follow and interpret the growth, internal and external, of the Dominion of Canada and of its relation to the United States as well as to the British Commonwealth of Nations.

Credit: 2 semester-hours

INTERNATIONAL AFFAIRS

Social Studies 412. International Government

The attempts of the international community of states to express itself in a formal world organization are the subject of this course. The agencies which have been established to deal with international legislative, executive, administrative, and judicial problems are studied.

Credit: 3 semester-hours

Social Studies 434. Contemporary World Affairs

This course is devoted to a survey of the leading diplomatic, economic, political, and military issues before the world today. The backgrounds from which these international affairs have evolved are reviewed.

Social Studies 442. The Far East

A study is made of the economic, social and cultural situation of the Far East, with particular emphasis on the historical background of China and Japan, and on our relations with the Philippines.

Credit: 2 semester hours

Social Studies 451. The Middle East

This course is a survey of Indian and Moslem civilizations. Postwar planning for the region from the Near East through Persia. India, Burma, Thailand, and Malaya to the Netherland East Indies is discussed.

Credit: 2 semester-hours

ECONOMICS

Social Studies 446. Current Problems in Economics and Government

This course is designed to analyze the relationship of economics to government. The causes and results of governmental activities are discussed in the light of their economic significance and their bearing on public welfare.

Credit: 2 semester-hours

Social Studies 450A and 450B. Modern Economic Problems and Policies

The purpose of this course is to contribute to the general need for increased knowledge in the area of economic relationship, using the problem approach method of analysis. 450. begins with a brief recapitulation of the overall functioning of the economic system, after which the class proceeds to a detailed study of our broader economic problems and the public policies relating to them. Specifically, the problems are those relating to population and natural resources, the economic functions of government, the measurement of economic activity, monetary stability, basic banking problems, business cycles. marketing trends, economic inequality, and social security. 450B considers those problems associated with the world economy, international trade and exchange, monopoly and its regulations, the problems concerned with the control of public utilities, emergency price regulation and economic stabilization, labor problems, the problems of public finance, the public debt and fiscal policy, and, finally, the nature of comparative economic systems and their relations with each other.

Social Studies 456. International Economic Relations

The purpose of this course is to study the significance of international trade and exchange to the economic life of our nation and to the world economy.

Credit: 2 semester-hours

Social Studies 482. Conservation and Rural Economic Life

This course provides for a study of one of the basic economic problems in America today. Land use, farm loans, price support of farm products, increased acreage production, conservation practices, are among the topics studied to give the student a better understanding of the relationship between rural and urban living. Trips are arranged to nearby farms, dairy cooperatives, farm bureaus, banks, and town meetings.

Credit: 2 semester-hours

SOCIOLOGY

Social Studies 429. Present-Day Social Problems

Beginning with a survey of levels of living in the United States and their relation to the distribution of wealth and income, this course proceeds with a study of poverty and crime, their sources, treatment, and prevention.

Credit: 2 semester-hours

Social Studies 439. The Family and Its Problems

This course gives a history of the family, our American family patterns, the effects of social change, marital patterns of interaction, social roles, sources of conflicts and frustration, divorce and desertion, special problems in family life, economics of children and the home, social legislation pertaining to family problems, marital adjustments, personality change after marriage, parent-child relationships, and personality reorientation.

Credit: 2 semester-hours

Social Studies 443. Youth and the Community

This course is a sociological study of youth in its many relations to the community. Special attention is given to problems which arise in the relationship of youth and the community; e. g., juvenile delinquency, conditions contributing to maladjustment, poorly adjusted children, and educational and social agencies active in solving youth behavior.

Social Studies 444. The Social Bases of Human Relations

This course emphasizes the social bases of human nature and personality. Primary and secondary groups, folkways, mores, and institutions are considered.

Credit: 2 semester-hours

SOCIAL STUDIES 455. Social Legislation

This course analyzes the social, economic, and political adjustments which have come about in our society due to technological progress.

Credit: 2 semester-hours

Social Studies 476. Personality Development and Group Relations

A study is made of personality growth through social contacts, the environmental factors found in the home and family, neighborhood, play, and school groups. Methods of measuring the place of the individual in the group, analysis of the group process, ways of bringing about better life adjustment, and integrating experiences are the subject matter of the course. Concrete cases of maladjustment to society and disintegrated personality are studied. Agencies in the community which serve youth are visited, and leadership in community group activities is recognized as part of the course requirements.

Credit: 2 semester-hours

Social Studies 477. Rural Sociology

During this course the student comes face to face with rural life in northern New Jersey. Social processes and problems are considered. Opportunities are provided for students to attend Grange meetings, county fairs, rural dances and parties, and to live for a day or two with a farm family.

Credit: 2 semester-hours

Social Studies 479. Education and Intercultural Relationships

Within our nation as within the world, along with common needs and interests, there exist differences between groups and individuals which act as barriers to satisfying human relationships. This course is devoted to a consideration of these barriers and of common interests and needs which exist in spite of such barriers. We study not only the existence of such conditions but also the attitudes, principles, and techniques which may make for better human relationships.

Social Studies 483. Modern Approaches to Social Problems

This course is designed to acquaint students with techniques and practices developed in recent years for a scientific approach to problems of human relationship. Techniques to be studied include: sampling techniques for testing large groups, questionnaires, interviewing techniques, objective observation of culture patterns, objective observation in controlled laboratory situations, sociometrics, role-playing techniques, attitude testing, and use of semantic analysis in test construction. Students become acquainted with these techniques through the study of a variety of recent reports. The selection of items to be studied depends on the needs and interests of class members. This course is designed to aid in the development of attitudes and practices which make possible the use of a modern, scientific approach to social problems.

Prerequisite: An introductory course in sociology or special permission of the instructor.

Credit: 2 semester-hours

Social Studies and Conservation

Everyday problems of living as they are related to and affected by the wise use of our natural resources are studied in this course. The student learns about the renewable resources, soil, water, forests, and wildlife, as well as the non-renewable resources, minerals, oil, and coal. Economic, social, community, national, and individual problems are approached by giving the student first-hand experiences gained through extensive field trips in northern New Jersey. This course is of particular interest to social studies and elementary school teachers but also forms an excellent experience background for all educational fields. Methods of teaching, courses of study, and teaching units are developed.

Credit: 2 semester-hours

POLITICAL SCIENCE

Social Studies 402A and 402B. American and Comparative Government

The basic facts and principles necessary for the teaching of civics, history, and the political aspects of Problems of American Democracy are studied. The first part is devoted to American national government, including the obligations and rights of citizens, the suffrage, political parties, the changing nature of the Federal system, and the executive, administrative, legislative, and judicial systems. The second part deals with similar political phenomena in England, France, Germany, Italy, and Russia.

Social Studies 407. New Jersey State and Local Government

A study is made of the State Constitution; New Jersey's place in the Federal system; the rights and duties of citizens; suffrage; political parties; the legislative, the executive, and administrative systems; the courts, the law enforcement and correctional systems; revenues and expenditures; public health, educational, highway, and other services; county and municipal government; and other local political units.

Credit: 2 semester-hours

Social Studies 430. The Citizen and the State

This course is designed to help any citizen become better acquainted with the many organizations by and through which our complex society manages itself. The emphasis is placed on government and political organizations, but the course also includes a study of the many other organizations of the community, the county, and the state that have to do with directing policy and maintaining controls. The aim of the course is to encourage intelligent appreciation and participation rather than simply to accumulate academic information. Consideration is also given to the ways in which such working knowledge can become a part of the experience of the pupils in our schools.

Credit: 2 semester-hours

Social Studies 433. American Political Thought

This course deals with contemporary trends and theories as they have emerged from social and economic conditions and as they are founded upon the bases laid down by such men as Hamilton, Madison, Washington, Jefferson, Marshall, Calhoun, Webster, Lincoln, and Wilson.

Credit: 2 semester-hours

Social Studies 437. The Political Party System in the United States

Among the topics discussed are: party organizations, the political boss, the political machine, party finances, the process of voting, election laws, primaries, conventions, platforms, presidential elections, majority rule, the development of the party system, sectional politics, the farm vote, the labor vote, and the future of party government in the United States.

PHILOSOPHY

Social Studies 404. The Philosophy of History

It is the purpose of this course to investigate the relation of history to the other social studies and also the major attempts to find the meaning of history. A brief survey is made of the leading philosophies of history.

Credit: 2 semester-hours

Social Studies 470. History and Principles of Philosophy

This course presents a study of the history of philosophy and of the important principles contributed by outstanding philosophers from Thales to Gentile. Much of the discussion is centered on the three types of philosophic thought: naturalism, idealism, and pragmatism. Among the philosophers considered are: Plato, Aristotle, Bacon, Spencer, Rousseau, Hegel, James, Dewey, and Gentile.

Credit: 2 semester-hours

Social Studies 478. Theories of Social Justice from Antiquity to Our Time

This course is designed to show how specific ideas of social justice resulted from specific historical conditions and events. A comparison of social upheavals among the ancient Hebrews, Greeks, and Romans; the early Christians; the peasants in the Middle Ages; the religious rebels of the early Renaissance; and the revolutionaries of the modern age is to furnish background material for an understanding of present social thought. Lectures and discussions cover the social prophets of the Hebrews; Lycurgus; Cleomenes; Plato; Gracchus; Spartacus; the Essenes, the Waldensians, the Albigensians, and the Hussites; Wycliffe; John Ball; and on selected social thinkers of the last few centuries, such as Hobbes, Locke, Hume, Rousseau, the Utopians, the Socialists, and the Anarchists.

EDUCATIONAL TECHNIQUES

Social Studies 401. The Teaching of the Social Studies in Secondary Schools

This course aims to present recent tendencies in educational method in teaching the social studies. A program is presented containing the correlation of subject-matter organization in socialized recitation, the teaching of current events, projects in citizenship, and the use of the project-problem as a method of teaching history and civics.

Credit: 3 semester-hours

Social Studies 472. Modern Social Studies Instruction and Supervision

This course is designed primarily to assist teachers and supervisors to obtain a comprehensive view of recent curriculum trends, current subject-matter tendencies, and newer practices in secondary school social studies. Topics discussed include: materials, methods, and techniques; use of audio-visual aids; courses of study and experimental problems; professional literature; and problems of the critic teacher and the supervisor.

Credit: 2 semester-hours

FIELD STUDIES IN AMERICAN LIFE

Social Studies 460. Central Eastern Region

This fifteen-day tour of Pennsylvania, Maryland, Virginia, West Virginia, North Carolina, and Tennessee covers the major points of historic interest associated with the Colonial Period, the American Revolution, and the Civil War, and the geographic features of the coastal plain, the Piedmont, the Great Valley, and the Appalachian Mountains in these states. Travel is by modern chartered motor coach, and overnight stops are made at first-class hotels. Among the places visited are: Valley Forge, Philadelphia, Baltimore, Annapolis, Washington, Arlington, Alexandria, Mt. Vernon, Fredericksburg, Richmond, Washington's birthplace at Wakefield, Lee's plantation at Stratford, Yorktown, Williamsburg, Jamestown, Raleigh, Chattanooga, Asheville, Great Smoky Mountains, Norris Dam, Jefferson's Monticello at Charlottesville, Natural Bridge, Skyline Drive in the Shenandoah National Park, Luray Caverns, Winchester, Harper's Ferry, Frederick, Gettysburg, and the Pennsylvania Dutch area around Lancaster and Ephrata.

Social Studies 461. New England and French Canada

This field study course gives an opportunity to study by direct observation the historical and geographical features of New England and the Province of Quebec. The trip, occupying the twelve days immediately following the summer session, is made in a modern chartered motor coach with overnight stops at first-class hotels. The route covers the lower Connecticut Valley, including Hartford, Springfield, Northampton, and Deerfield; the Rhode Island cities of Providence and Newport: historic Massachusetts towns such as Plymouth, Boston, Lexington, Concord, Salem, and Marblehead: the coast of New Hampshire and southern Maine; the White Mountains in the Mt. Washington and Franconia Notch area; the Canadian Province of Ouebec, including the ancient French city of Ouebec, Montmorency Falls, St. Anne de Beaupré, Montreal; the western shores of Lake Champlain, Lake George, and the Hudson River. It is an indispensable background for an understanding of Colonial and Revolutionary life and history in this region.

Credit: 3 semester-hours

Social Studies 462. Continental United States

This field study course consists of sixty-two days of directed travel, including all of July and August, and provides an opportunity for gaining an integrated view of our country as a whole. The trip is made in a modern chartered motor coach with overnight stops at first-class hotels. The route covers about 12.500 miles and visits 26 states and 6 National Parks. Among the major points of interest are Gettysburg, Natural Bridge, Blue Ridge and blue grass region, Mammoth Cave, Lincoln shrines in Kentucky and Illinois, Dodge City, Royal Gorge, Pikes Peak, Denver, Rocky Mountain National Park, Taos and other Indian Reservations, Santa Fe, Petrified Forest, Painted Desert, Grand Canyon, Bryce and Zion National Parks, Hoover Dam, Los Angeles, Hollywood, San Diego, San Juan Capistrano and other Missions, Tia Juana, Santa Barbara, Sequoia and Yosemite National Parks, Monterey, San Francisco, Sacramento, Lake Tahoe, Reno, Donner Pass, mammoth redwood groves, Crater Lake, Columbia River Valley, Portland, Seattle, Mt. Rainier, Grand Coulee Dam, Spokane, Butte, Yellowstone National Park, Salt Lake City, pioneer trails of Wyoming, Black Hills, Chicago, Detroit, Toronto and Niagara Falls. All important geographic and historical features are studied under the instruction of members of the college faculty and local specialists. Write for detailed descriptive folder.

Social Studies 463. The Lower South

This is a fifteen-day field study course, covering the gulf coasts of Louisiana, Mississippi, and Alabama, and both coasts of Florida. Among the topics to be observed and studied are the Acadian and Creole culture in and around New Orleans; the industrial, historical, and recreational features of Biloxi, Mobile, and Tallahassee; the tobacco, citrus, and sponge-fishing industries in the neighborhood of Tampa, St. Petersburg, Lake Wales, Sarasota, and Fort Myers; the plant and animal life of the Everglades along the Tamiami Trail; the millionaire playgrounds of Miami and Palm Beach; and the historical shrines of America's oldest city, St. Augustine. It is usually offered during the Christmas holidays.

Credit can be given for only one of the following courses: Social Studies 463, 464, and 484.

Credit: 3 semester-hours

Social Studies 464. Southeastern Region and Gulf Coast

This is a twelve-day field study course covering the Atlantic Coast from Baltimore to Savannah and the Guli Coast from Tallahassee to New Orleans. It surveys the economic, geographic, and historical aspects of the coastal plain, the piedmont, and the lower Mississippi Valley visiting, among other places, Richmond, Williamsburg, Charleston, Savannah, Tallahassee, Pensacola, Mobile, Biloxi, New Orleans, Baton Rouge, Natchez, Vicksburg, Jackson, Birmingham, Atlanta, Greenville, Charlotte, and Greensboro. It is offered during the Christmas holidays.

Credit can be given for only one of the following courses: Social Studies 463, 464, and 484.

Credit: 3 semester-hours

Credit: 2 semester-hours

Social Studies 465. The Border States

This is a nine-day field study course covering mainly the states which were border or frontier states during the early stages of the westward movement or border states between the North and the South during the Civil War. The route of the trip will be down the eastern shore of Delaware and Maryland to Williamsburg, up the southern shore of the James River to Appomattox and across the mountains to Natural Bridge; then down the Great Valley to Knoxville and the Norris Dam, westward to Nashville, north again to Mammoth Cave, the Lincoln Memorial, and the Blue Grass Country of Kentucky, up the Ohio River through the land of iron and steel to Pittsburgh, and finally homeward across the Appalachians by way of the Pennsylvania Turnpike.

Social Studies 466. Puerto Rico and the Virgin Islands

This is a nine-day field study course devoted to a survey of our nearest island possessions. It includes a rather thorough exploration of San Juan and its vicinity, including the University, the rain forest and the submarine gardens, a three-day trip through the island visiting pineapple, coffee, sugar, textile, and rum producing areas, churches, homes, and historic places. One day is spent in St. Thomas, largest of the Virgin Islands. The trip to and from the islands is made by air. It is offered during the Christmas holidays.

Credit: 2 semester-hours

SOCIAL STUDIES 467. Florida

This is a field-study course covering the Florida peninsula including both coasts, the Everglades, and the Lake Region. Among the places visited are ancient St. Augustine; the winter playgrounds at Palm Beach and Miami; the Tamiami Trail through the Everglades; the west coast cities of Sarasota, St. Petersburg, and Tampa; and the Lake Region in the neighborhood of Lake Wales and Orlando. The trip affords opportunity for topographical, historical, and industrial studies. It is usually given during the Easter vacation.

Credit: 2 semester-hours

Social Studies 469. Mexico

This field-study course aims to give a comprehensive view of contemporary Mexican life with its geographic, economic, historic, and cultural setting. Transportation to and from Mexico City is by air and in Mexico by private cars. Overnight stops and meals are at the best hotels. Places visited include Xochimilco, Acolman, Teotihucan, Fortin, Puebla, Oaxaca, Guadalajaro, Queretero, Guanajuato, Patzcuavo, San Miguel de Allende, San Jose Purua, Morelia, Toluca, Taxco, and Cuernevaca. The itinerary is carefully planned to include all points of major interest and significance. Special studies may be made in the fields of geography, history, art, architecture, archaeology, sociology, economics, and other fields.

Credit: 3 semester-hours

Social Studies 481. The West Indies

This course consists of ten days of directed travel in five countries in the Caribbean region. Transportation is by air and private cars with overnight stops at the best hotels. Opportunities are given for study of geographic, historic, economic, and cultural phenomena in Puerto Rico (one day), Santo Domingo (two days), Haiti (two

days), Jamaica (two days), Cuba (two days), visiting San Juan. Cuidad Trujillo, San Cristobal, Port au Prince, Kenscoff, Kingston, Havana, and rural areas in all countries.

Credit: 2 semester-hours

SOCIAL STUDIES 484. Gulf Coast and Lower Mississippi Vulley

This is a nine-day field-study course covering the Gulf Coast from Mobile to New Orleans. It also surveys the economic, geographic, and historical aspects of the lower Mississippi Valley visiting among other places Mobile, Biloxi, New Orleans, Baton Rouge, Natchez, Vicksburg and Jackson.

Credit can be given for only one of the following courses: Soc. St. 463, 464, and 484.

Credit: 2 semester-hours

BACKGROUND STUDIES IN AMERICAN LIFE

Social Studies 492A and B. Studies in American Life—The East and the West

These courses comprise a unit designed to give the student an integrated understanding of the United States as a cultural, historic, geographic, social and political unit and, at the same time, an appreciation of the regional differences which characterize American unity in diversity. It should be useful to those who have traveled, to those who intend to travel, and to those who, although they cannot travel, wish to broaden their knowledge of our country. The geography, the history, the literature, the art, the music, the architecture, the people, the manners and customs, the flora and fauna, the economic, social, and political problems, and the significant personalities of the regions studied are discussed and illustrated with slides, films, and other audio-visual materials. Either course may be taken without the other.

The subject matter of Social Studies 492A covers New England, the Central East, the South, and the Middle West cast of the Mississippi River. The subject matter of Social Studies 492B deals with the regions west of the Mississippi, i. e., the Great Plains, the Mountain States, the Southwest, the Northwest, and California.

INSTITUTES AND WORKSHOPS

Social Studies 490A. United Nations Institute

This course covers four and one-half hours per day for ten consecutive days excluding Sunday. It consists of basic lectures on factual backgrounds by the instructor, supplementary lectures by visiting lecturers from the United Nations and other organizations, discussions, workshop and library projects, demonstrations of the use of audio-visual materials, and field trips to the United Nations. Included among the subjects studied are the national state system, war and peace, world organizations (past, present, and proposed), the national armaments problem, international law, the international police proposal, pacific methods of settling international disputes, and the outlook for international co-operation.

Credit: 3 semester-hours

Social, Studies 490B. The United Nations and American Foreign Policy

The purpose of this course is to help provide an understanding of the United Nations in its operation as a basis for American foreign policy. In that the Charter of the United Nations forms the backbone of American cultural, economic, and military cooperation with other nations, its interpretation and the application of our aid to needy people open a wide area of disagreement within the nation. Following the principle that American foreign policy should rest upon an intelligent understanding on the part of the electorate and working within the framework of the policy of the State Board of Education with regard to controversial issues, the United Nations Institute deals with the strong as well as the weak aspects of this newly created world organization. This institute serves the needs of teachers of all grades, students of foreign policy, the public at large, as well as visitors from other lands who are here to study the ways of American democracy. It is available to students who have completed the requirements for Social Studies 490A. United Nations Institute, or the equivalent.

Credit: 3 semester-hours

Social Studies 490C. The Specialized Agencies of the United Nations

The purpose of this course is to give the student an opportunity to learn about the various activities of the specialized agencies of the United Nations. The course deals with the positive activities of the

United Nations in the various areas of human welfare. Visiting lecturers from the agencies themselves and from areas of the world receiving such help are a regular part of the class work. Trips to the New York offices of these agencies and individual research make up the balance of the work for this course.

Social Studies 490A, United Nations Institute, or its equivalent is a prerequisite for this course

Credit: 3 semester-hours

Social Studies 490D. The United States and World Affairs

The purpose of this course is to give the student an opportunity to make a thorough survey of the leading problems in world affairs. Visiting lecturers from agencies concerned with the problems of today's world supplement the basic information supplied by the regular members of the Institute staff. Included among the subjects studied are: Underdeveloped areas of the world, technical assistance, international trade and cultural interdependence. Special emphasis is placed on the relations of the United States with such areas of the world as the Far East, Eastern Europe, the Middle East, Western Europe, and Latin America.

This course is designed primarily for teachers who feel the need for accurate background information and improved teaching materials and techniques for use in their classrooms. In addition to the conventional lectures, this course features the showing of the latest films in the field of world affairs, field trips to the United Nations and to foreign areas of New York, exhibits of teaching materials, demonstrations of teaching techniques and materials, folk singing, and folk dances suitable for classroom use.

Credit: 3 semester-hours

SOCIAL STUDIES 490E. Latin America, A Survey

The purpose of this course is to give the student an opportunity to make a thorough survey of Latin America. Visiting lecturers from agencies concerned with Latin American affairs supplement the basic information supplied by the regular members of the Institute staft. Included among the subjects studied are: Geographic setting and influences, pre-European cultures, exploration and settlement, independence, the Monroe Doctrine, economic colonialism, Pan-Americanism, present-day Latin America, United States relations with Latin America, and Latin America and the United Nations.

This course is designed primarily for teachers who feel the need for accurate background information and improved teaching materials and techniques for use in their classrooms. In addition to conventional lectures, this Institute features the showing of the latest films

on Latin America, field trips to the United Nations and Latin American centers of New York, exhibits of materials suitable for teaching, demonstrations of teaching techniques and materials, folk singing, and folk dances suitable for classroom use.

Credit: 3 semester-hours

Social Studies 491A. Workshop in Citizenship Education, Part I

The purpose of this workshop is to present a study of what has been done in some of the many projects in citizenship education throughout the country. Special emphasis is placed on the plans and materials developed by the Citizenship Education Project now being conducted by Teachers College, Columbia University, and financed by the Carnegie Corporation. Montclair has been one of the eight teachers colleges cooperating in this project, and the College High School is now a cooperating school. Consultants are invited in as needed. Attention is given to programs and practices already in use in the schools, and advantage is taken of the state-wide project of this past year in collecting from the schools experiences in education for character and citizenship. New means for citizenship education are sought, and methods of evaluation are reviewed. Experience in the group processes essential to democratic action is provided. It is hoped especially to include in the workshop those who have been or may be serving as training teachers for Montclair student teachers, especially in the fields of social studies and English. Principals and administrators who want to join with others in learning how to make more effective the citizenship education in the schools with which they are connected are invited to participate. Each participant in the workshop works on actual plans for carrying out such education in the school and the classroom.

Credit: 2 semester-hours

Social Studies 491B. Workshop in Citizenship Education, Part II

Membership in this workshop course is limited to those who have completed Social Studies 491A, and participants in this advanced workshop meet and work with the members of the Social Studies 491A workshop. On the basis of previous experience, each member of the Social Studies 491B group is expected to work out several laboratory practices or similar projects for use in the classroom or the school.

Social Studies 499. Introduction to Chinese Culture

A number of authorities introduce first-year students to the rise, growth, and maturing of Chinese civilization, as well as to the fundamental problems of China today, including the conflict of ideologies. The course is given in twelve days. Each day there are two hours of lectures in the morning; after lunch a period of forty-five minutes is devoted to informal talks including further discussion on Chinese music, philosophy, Chinese school days, festivals, and calligraphy. Some time is also given to the singing of Chinese songs and the showing of motion pictures. During the two-hour workshop period the students prepare their projects, teaching units, and background material under the direction of faculty members.

Credit: 3 semester-hours

SOCIAL STUDIES 496A. The Chinese Society

This course is an intensive study of the formation of the Chinese people, their collective life, and the interaction of natural and human forces with the resultant social organizations from early times to the present. Particular emphasis is placed upon the development of social institutions, including the family, labor guilds, educational systems, and religious institutions, as well as their transformation and modernization under the impact of different forces from the West. There are twenty-four hours of lectures in the morning, and round-table discussion and library work in the afternoon.

Prerequisite: Social Studies 499, Introduction to Chinese Culture

Credit: 3 semester-hours

Social Studies 496B. China: The Evolution of a Nation

This course is an intensive study of the Chinese civilization, the forces underlying the development of the national character of the Chinese people, their contacts and conflicts with other peoples and cultures from historical times to the present. Because of its voluminous material, this course does not attempt to cover the whole span of Chinese history, but it is an integrated presentation of the maturing of the Chinese people as a nation. There are twenty-four hours of lectures in the morning, and round-table discussion and library work in the afternoon.

Prerequisite: Social Studies 499, Introduction to Chinese Culture

Social Studies 497. Chinese Philosophy

This course shows how the ancient philosophies, Confucianism, Taoism, Buddhism, Mohism, can be applied to the China of today and how they affect modern Chinese thought. There are twenty-four hours of lectures in the morning, and round-table discussion and library work in the afternoon.

Prerequisite: Social Studies 499, Introduction to Chinese Culture, or an equivalent course in philosophy

Credit: 3 semester-hours

Social Studies 498. China and the Far East

This course presents to the student a factual and up-to-date analysis of the forces that are operating in the Far East and shows how these forces may affect future deevlopments in the critical area of the world. China, with its people as a key area in the Far East, is interpreted in terms of current economic, political and cultural developments. Recognized experts from the various countries in the Far East present problems from the standpoint of their experience and background. The course itself is synthesized by a course director who is a serious student of China and its neighbors.

Credit: 3 semester-hours

FINE ARTS 414. History of Chinese Art

For a description of this course, see page 113.

Credit: 3 semester-hours

ENGLISH 459. A Survey of Great Chinese Literature

For a description of this course, see page 34.

OTHER COURSES THAT MAY BE USED AS ELECTIVES

For more complete descriptions see the undergraduate catalog.

FINE ARTS 406. Art Workshop

The workshop offers choice of experience in painting, drawing, sculpture, ceramics, and print-making for students who wish to employ the creative visual arts in the teaching of other subjects. The course is designed to allow the student to have concentrated experience in art media best suited to his needs. Emphasis is placed on individual satisfaction through creative self-expression. No previous art experience is required.

Credit: 2 semester-hours

FINE ARTS 408. Creative Painting

This course gives the student an opportunity to use the materials of the painter for personal creative experience. Through the use of oils, water colors, and other media, the student is encouraged to work on landscape, figure, and free imaginative composition. Emphasis is placed on individuality of expression, variety of subject matter, and experimentation. No previous art experience is necessary.

Credit: 2 semester-hours

FINE ARTS 414. History of Chinese Art

In this course the developments and distinguishing characteristics of the major arts of China are traced by specialists and are surveyed from the point of view of their historical development. An historical survey of the development of Chinese art from the dawn of civilization to the present day is made which includes the role played by foreign influences such as the spreading of Buddhism and the Chinese influence on other parts of the world. There are twenty-four hours of lectures in the morning and round-table discussion and library work in the afternoon. During the afternoon workshop period the technique of Chinese painting is demonstrated. Although there is no prerequisite for this course, it is suggested that those who enroll should have some knowledge of art or have taken Social Studies 499—Introduction to Chinese Culture.

FINE ARTS 415. School Arts and Crafts with Native Materials

In this course the student gains an appreciation and understanding of art expression growing out of the immediate environment as he learns to work creatively with native materials. Useful and decorative articles are made from wood, fruit pits, seeds, grasses, reeds, and native clay. The use of natural dyes for coloring is demonstrated. The construction of teaching aids using simple, native materials is also shown. Flower and plant arrangements for room and table decoration in keeping with good conservation practices are presented.

Credit: 2 semester-hours

Geography 503. Economic Geography of the United States and Canada

A study is made of the agricultural, industrial, and commercial development of the United States and of the geographic factors that have contributed to that development.

Credit: 2 semester-hours

GEOGRAPHY 504. Economic Geography of Europe

This course constitutes a study of the economic development of the nations of Europe in relation to the environmental background and resources that have made Europe one of the world's leading continents.

Credit: 2 semester-hours

GEOGRAPHY 509. Economic Geography of Asia

This course constitutes a treatment of the economic and commercial development of the countries of Asia in relation to their natural environment.

Credit: 2 semester-hours

GEOGRAPHY 406. Geology

This course deals with the earth and its geographic, stratigraphic, and structural development throughout geologic time; the record of the evolution of life as interpreted through a study of rocks and fossils.

Credit: 2 semester-hours

Geography 408A and 408B. Political Geography

This course deals with the geographic conditions influencing the significant changes in the political divisions of the world. Emphasis is placed on geographic factors influencing racial, religious, commercial, and political adjustments between nations.

GEOGRAPHY 409. Economic Geography of the British Isles

A comprehensive treatment of the resources of the British Isles is given, and the influence of the natural environment upon the utilization of those resources in the economic, social, and political development of the British Empire is evaluated.

Credit: 2 semester-hours

GEOGRAPHY 410. Economic Geography of Caribbean America

This is a study and interpretation of the major and important minor economic areas of Caribbean America in relation to the natural environment.

Credit: 2 semester-hours

GEOGRAPHY 411. Geographic Influences in American History

A study is made of the geographic factors influencing the development of social, economic, and political life in America.

Credit: 2 semester-hours

GEOGRAPHY 412. Geography of Africa, Australia, and New Zealand

A study is made of the activities of the people of Africa, Australia, and New Zealand in relation to their natural environment. Attention is given to the influence of geographic factors upon the post-war adjustments and the possible future relations of these countries with the United States.

Credit: 2 semester-hours

GEOGRAPHY 413. Economic Geography of South America

This course constitutes a study of the influence of the natural environment upon production and utilization of resources in the economic, social, and political development of the various nations of South America.

Credit: 2 semester-hours

GEOGRAPHY 414A and 414B. Advanced Economic Geography

This course is a study of the influence of the physical environment upon the production of, the trade in, and the utilization of the important agricultural, forest, mineral and sea products, and the manufactured commodities of the world.

Geography 416. Conservation of Natural Resources

This course includes a study of the natural resources of the United States, their past and present exploitation, their influence on the development of the nation, their conservation and future use.

Credit: 2 semester-hours

GEOGRAPHY 418. Regional Geography of North America

This course constitutes a detailed regional treatment of the continent of North America. Emphasis is placed upon the human activities of the various regions in relation to their natural environment and the relations of the regions to each other.

Credit: 2 semester-hours

Geography 419. Economic Geography of the Union of Soviet Socialist Republics

This course is designed to give a comprehensive and objective treatment of Soviet Russia's natural resources and industrial potential in relation to the geographic environment. Special emphasis is given to the formative periods of Russia's industry to show the significance of and the continuous operation of geographical factors in the economic development of Russia.

Credit: 2 semester-hours

Geography 420. Field Geography and Conservation

This course constitutes a study of the relation between relief features of northern New Jersey, the location of natural resources, and the way in which land use and population distribution follow these patterns. Emphasis is given to the reading and interpretation of topographical maps and aerial photographs and to a study of the United States Geological and Soil Surveys of this region. By means of an actual land-use survey the student comes to appreciate the problems of conservation as they grow out of man's use of natural resources.

Credit: 2 semester-hours

Music 401. The Teaching of Music in Secondary Schools

This course deals with the aims, content, and procedure in the teaching of music in the junior and senior high schools.

It includes a study of general and elective music courses, extracurricular music activities, and music for special programs. Attention is given to the coordination of the choral and instrumental program with music appreciation and music theory. Lesson plans and units of work are prepared for use in the classroom.

This course includes observation and participation in the College High School.

Credit: 3 semester-hours

Music 405. Orchestra Conducting and Score Reading

This course aims to develop skills in orchestra conducting and score reading. It includes a study of the particular type of ear training needed in conducting, the technique of the baton, score reading, and interpretation. A special feature of this course is the presentation of a large amount of musical examples taken from standard repertory which contain practically all technical and psychological problems which face the conductor. Practical experience in conducting is given in the College High School Orchestra and the College Orchestra.

Prerequisite: Music 305

Credit: 2 semester-hours

Music 406. Epochs in Musical Development, Part III

This course is a continuation of Music 208 and makes a study of the late romantic period and the rise of modern music. It includes a study of the music of Richard Strauss, Bruckner, Prokofieff, Mahler, Debussy, Tschaikowsky, Mussorgsky, Stravinsky, Schoenberg, Bartok, and Hindemith.

This course is professionalized for use in the teaching of music appreciation in the classroom.

Credit: 2 semester-hours

Music 407. The Development of the Opera

This course deals with the origin, development, and characteristics of opera in the Italian, French, German, and Russian schools. Class analyses are made of representative operas of these schools. The content of this course is related to the Saturday afternoon broadcasts from the Metropolitan Opera, New York City. Special attention is given to building an ear repertory of operatic music heard over the radio.

Credit: 2 semester-hours

Music 408. Wagner Music Dramas

This course deals with the operas and music dramas of Richard Wagner. It includes a study of Wagner's artistic ideals and their application to his compositions.

Music 409. Counterpoint

This course aims to provide a practical treatment of counterpoint for music students. It includes analysis of the works of the sixteenth century masters of vocal polyphony with enough of original work to insure a grasp of the principles involved.

Prerequisite: Music 202

Credit: 2 semester-hours

Music 410. Composition

This course aims to develop the creative power of the student in the composition of small vocal and instrumental forms. Special attention is given to the functional aspects of composition in word setting, writing accompaniments, and improvisation.

Prerequisite: Music 202

Credit: 2 semester-hours

Music 413. Masters of the Symphony

This course aims to provide the student with an understanding and appreciation of the classic and romantic symphony through the study of the symphonies of Haydn, Mozart, Beethoven, Schubert, Schumann, and Brahms.

Credit: 2 semester-hours

Music 414. Modern Symphonic Forms

This includes a study of the post-romantic symphonies of Bruckner, Mahler, Dvorak, Franck, Tschaikowsky, and Sibelius; the symphonic poems of Strauss, Smetana, and Debussy, and the orchestral suites of Rimsky-Korsakoff, Ravel, and Stravinsky.

Credit: 2 semester-hours

Music 416. Music in Modern Society

This course aims to interpret the nature, function, and forms of music in modern society in terms of the social, political, and cultural forces which have shaped it. It includes a study of the music of the church, royal patrons of music, nationalism in music, music and politics, music and industry, and music and entertainment. Because of the social interpretation given music, this course is particularly recommended to majors in the social studies.

Music 420. The Art Song

This course provides a survey of the art song and includes a detailed study of the art songs of Beethoven, Schubert, Schumann, Brahms, Wolf, and Strauss. Special attention is given to the relation of music and poetry.

Credit: 2 semester-hours

Music 422. Chamber Music

This course provides a survey of chamber music and includes a detailed study of the string trio, quartet, and quintet by classic, romantic, and modern composers. It includes the works of Mozart, Haydn, Beethoven, Schubert, Brahms, Debussy, Bartok, and Schoenberg. The content of this course is related to the current musical season in New York.

Credit: 2 semester-hours

Music 423. Choral Masterworks

This course provides a survey of choral masterworks from Palestrina to Stravinsky. It includes a detailed study of Bach's B Minor Mass, St. Matthew Passion, Handel's Messiah, Beethoven's Missa Solemnis; Mendelssohn's Elijah; Verdi's Requiem and other great choral works. The content of this course is related to the current musical season in New York City.

Credit: 2 semester-hours

Music 424. A Survey of Wind Instrument Music

This course includes music for full band, small ensembles, and solos with emphasis on literature available for brass and wood-wind players in high school. A laboratory band as well as numerous small ensemble groups are formed by members of the class so that performance of all music under consideration is possible. Special attention is given the music originally composed for wind instruments. New music from all publishers is available for examination and evaluation.

Credit: 4 semester-hours

Music 425. Music of the Romantic Period

This course deals with the romantic spirit in music as expressed in the works of Schubert, Schumann, Mendelssohn, Chopin, Berlioz, Liszt, and others. It includes a study of program music, piano and song literature, and the rise of national schools of musical composition. Representative works are studied through performance, record-

ings, and radio listening. Special attention is given to parallel aspects of Romanticism in literature and the visual arts.

Credit: 2 semester-hours

Music 426. Survey of Music Literature

This is a survey course in Music Literature and includes a study of folk song, art song, oratorio, opera, idealized dance forms, instrumental suite, sonata, symphony, and symphonic poem. Abundant use of musical illustration, directed listening, and music making acquaints the student with great masterpieces of music which should be the possession of every generally cultured person. This course is designed for the general student and aims to make intelligent and appreciative consumers of music. It is a non-technical course and attempts to make intelligent and appreciative radio-listeners and concert goers. Special attention is given to the relation of music to English literature and the social studies.

Credit: 2 semester-hours

Music 428. Music of Twelve Great Nations

This course aims to increase understanding among people through a study of the folk and related art music of twelve great nations. Special attention is given to the social, economic, political, and cultural backgrounds of the music of these nations. Because of the social implications of this music this course is recommended particularly to teachers of the social studies. Musical illustrations are given at the piano, through group singing, and through recordings.

Credit: 2 semester-hours

Music 429. A Cappella Choir and Choral Conducting

This course deals with the theory and practice of the *a cappella* choir. It includes a study of the principles of group tone production, phonetics as related to singing, tuning, posture, techniques of choral conducting, interpretation, and score reading. A feature of this course is the study of a selected list of choral literature suitable for use in school, church, and community. Outstanding students are given an opportunity to conduct the College A Cappella Choir.

Prerequisite: Music 301

Musica 460. Musical Studies in Europe

This field-study course gives an opportunity to study by direct observation major European musical events of the summer season together with visits to famous places in the history of music. Beginning on July 2nd the tour extends to September 3rd covering the countries of France, Germany, Austria, Switzerland, the Netherlands, and Italy. Among many other things opportunities are provided to attend the Richard Wagner Festival in Bayreuth and the Salzburg Musical Festival and to visit the musical shrines and museums in Vienna and the LaScala Opera House and museum in Milan. Famous places such as London, Paris, Rome, Florence, Venice, Amsterdam, Frankfurt, Stuttgart, and Lucerne are included in the itinerary. Students who are registered for credit are required to present a written report at the end of the trip.

Credit: 6 semester-hours

Music 499A. Problems in the Teaching of School Music

This is a post-student teaching course. It aims to (1) evaluate student-teaching experiences; (2) give an opportunity to the student to share with his classmates the problems encountered in student teaching and to seek a possible solution for the same; (3) meet shortages in teacher preparation not provided for in previous courses; (4) give the student a unified view of school music education before he enters the teaching field. The content of this course is determined largely by the expressed needs of the students.

Credit: 2 semester-hours

Music 499B. Workshop in School Music

This course is designed primarily for music teachers-in-service who wish to work out projects for use in their respective schools. The content of this course is determined by needs in the field. It may include folk song dramatizations, small vocal and instrumental ensembles, the integration of music with other subjects in the curriculum, music for boys, visual aids in music pageants, festivals, and materials for special programs. This course provides the teacher with a number of units of work suitable for classroom use.

HEALTH EDUCATION 401. Methods and Materials in Health Education

This course prepares the teacher to assume the responsibility for organizing and conducting a program of health instruction. The coordination of health with other subject-matter fields and the evaluation of textbooks and audio-visual materials are given special consideration.

Credit: 2 semester-hours

HEALTH EDUCATION 407. Prevention and Care of Athletic Injuries

This is a lecture and laboratory course designed to acquaint the student with ways to prevent and to care for the common injuries sustained in athletics.

Credit: 2 semester-hours

HEALTH EDUCATION 408. Behind-the-Wheel Driver Education and Driver Training

Part I

This part consists of a minimum of 40 hours of class recitations and discussions for which home reading and study have been assigned. The following topics are included: (1) history and development of driver education and training programs; (2) objectives of driver education; (3) local, state, and national traffic safety programs; (4) driver qualifications; (5) psycho-physical testing; (6) curriculum content of school courses in driver education and training; (7) construction, operation, and maintenance of automobiles; (8) traffic laws and driver licensing; (9) traffic engineering; (10) pedestrian education and protection; (11) equipment for teaching driver education; (12) liability, costs, and insurance; (13) planning driver education as a part of the daily program of the high school; (14) public relations; (15) records and reports; and (16) visual aids in teaching driver education.

Part II

This part consists of a minimum of 20 hours devoted to the following: (1) behind-the-wheel instruction; (2) demonstrations and student-teacher practice in the car; and (3) road tests in traffic. Home reading and study are required in preparation for these projects.

Prerequisite: License to drive a car

HEALTH EDUCATION 411. School Health Services

The student is familiarized with the health services available in the school. The part which the teacher plays in coordinating his activities with the school medical staff is emphasized.

Credit: 2 semester-hours

PHYSICAL EDUCATION M405. Management of Athletic Activities

The student is provided with information essential to the good management of an intra-mural and interscholastic athletic program. Some of the major problems to be considered are: education values, health and safety of participants, insurance, transportation, scheduling, management of finances, budgeting, maintenance of play areas, care of supplies and equipment, state and local athletic associations, and the organization of leagues and meets.

Credit: 2 semester-hours

Physical Education W405. The Program of Physical Education for High-School Girls

Consideration is given to the entire physical education program for girls in junior and senior high school including: preparation of courses of study, methods of instruction, and extra-curricular activities. Active participation in the activities may be required by the instructor.

Credit: 2 semester-hours

Physical Education 409. Organization and Administration of Physical Education

The details of organizing the units of the physical education programs are discussed. Various topics, such as legislation, financing, curriculum construction, grading, excuses, plant facilities, supplies and equipment, and office management are considered.

Credit: 2 semester-hours

Physical Education 410. Water Safety and First Aid

This course includes intensive instruction in swimming, diving, water sports, boating, canoeing, water safety, and first aid. Students can qualify for Red Cross certificates during this course.

THE NEW JERSEY STATE SCHOOL OF CONSERVATION

The six State Teachers Colleges, the State Department of Education, and the State Department of Conservation and Economic Development jointly operate the New Jersey State School of Conservation at Lake Wapalanne in Stokes State Forest, Sussex County. Credit for the courses given at the New Jersey State School of Conservation may be applied toward the Master's degree at the New Jersey State Teachers Colleges, subject to approval in advance by the institution concerned. Students are advised to check with their advisers relative to the application of these credits towards graduate degrees.

The following courses may be offered at the New Jersey State School of Conservation. For complete course descriptions, please refer to the departmental write-ups appearing in this bulletin. Special descriptive announcements may also be had by writing to the New Jersey State School of Conservation, Upper Montclair, New Jersey.

FINE ARTS DEPARTMENT

Fine Arts 415. School Arts and Crafts with Native Materials

GEOGRAPHY DEPARTMENT

Geography 420. Field Geography and Conservation

INTEGRATION DEPARTMENT

Integration 440. Camping Education

Integration 441. Conservation Education

Integration 442. Practicum in Camp Leadership Integration 444. Practicum in Conservation Education

Integration 480. Field Science for Elementary Teachers

HEALTH AND PHYSICAL EDUCATION DEPARTMENT

Physical Education 410. Water Safety and First Aid

SCIENCE DEPARTMENT

Science 405. Field and Laboratory Studies in Science Science 411. Problems in Field Studies in Science Science 412. Field Studies in Science: Biological Science 413. Field Studies in Science: Physical Science 414. Conservation of Plants and Animals Science 415. Conservation of Soil and Water Science 419. Field Science and Conservation Science 420. Water Supply and Conservation Problems

SOCIAL STUDIES DEPARTMENT

Social Studies 477. Rural Sociology Social Studies 482. Conservation and Rural Economic Life

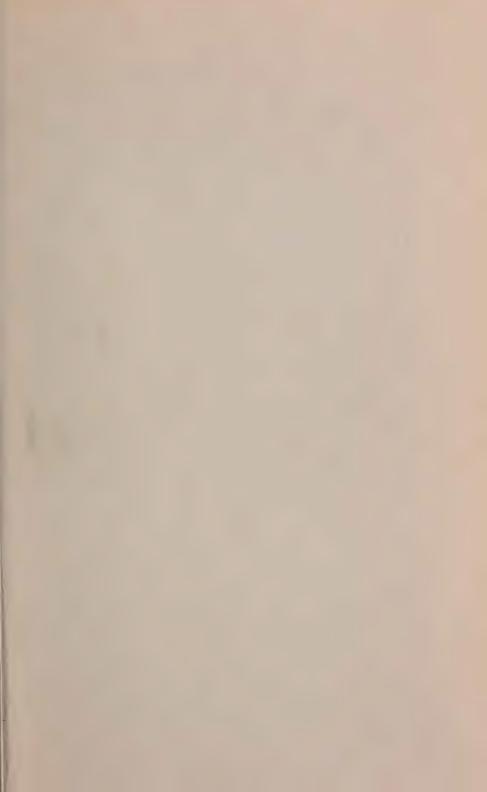
Social Studies 494. Social Studies and Conservation

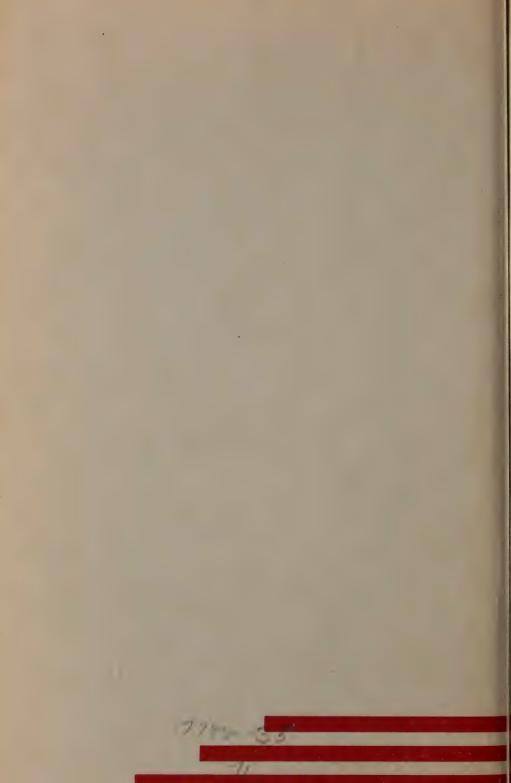
Colleges From Which Graduate Students Now Matriculated Received Their Baccalaureate Degree

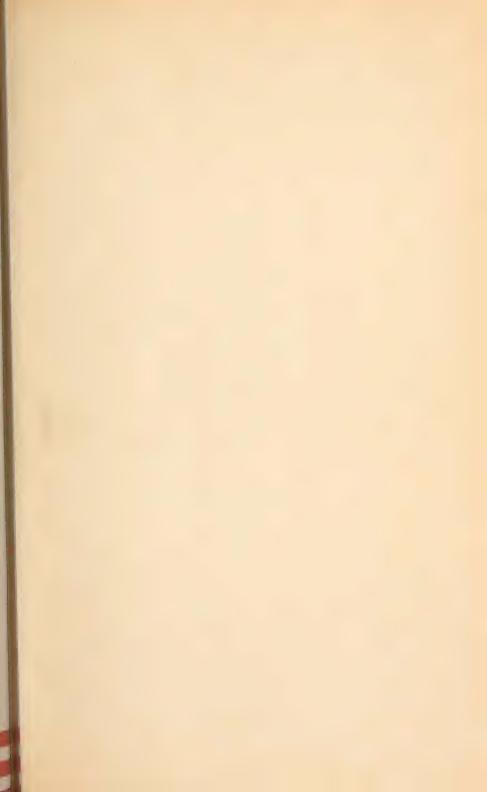
A & T College, Greensboro, N. C. Bates College Bennett College Bible Baptist Seminary Bloomfield College Bob Jones University
Boston University
Bowling Green College, Ohio
Bradley University Brooklyn College Brown University Bucknell University Catholic University Chestnut Hill College, Penna. College of St. Elizabeth
Cornell University
Drew University
Duke University
East Stroudsburg State Teachers College Eastern Kentucky State Teachers College Fairleigh Dickinson College Fordham University Franklin & Marshall College Georgetown University Goucher College Hampton Institute Holy Cross College Hood College Hope College Howard University Indiana State Teachers College Keuka College Lafayette College Lebanon Valley College Lehigh University Limestone College Maryville College Mt. Carmel College, Canada Muhlenberg College Muskingum College New Jersey College for Women New York University

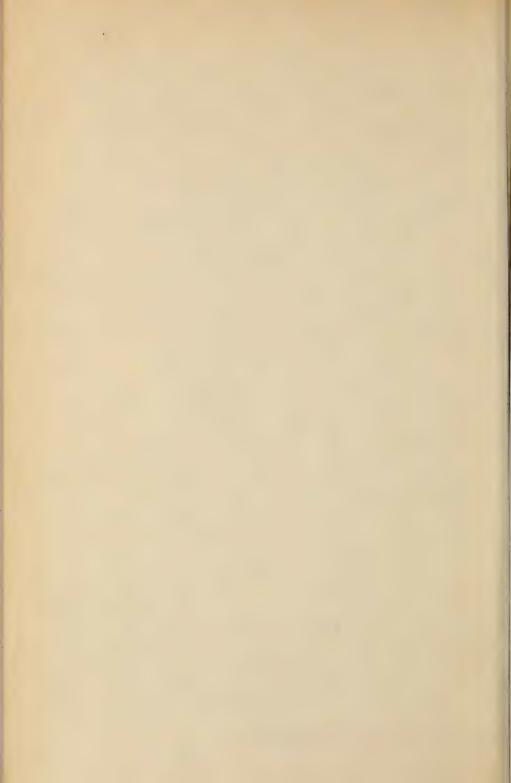
Panzer College Pennsylvania State College Pratt Institute Rider College Rutgers University St. Bonaventure College St. John's University
St. Lawrence University
St. Peter's College
Seton Hall University Smith College State Teachers College at Jersey City State Teachers College at Kutztown State Teachers College at Montclair State Teachers College at Newark State Teachers College at Paterson State Teachers College at Trenton State Teachers College at West Chester Swarthmore College Syracuse University Teachers College, Columbia University Temple University Tusculum College Union College University of Kentucky
University of Maine
University of Maryland
University of Miami
University of Michigan
University of Michigan University of Nevada University of North Carolina University of Pennsylvania University of Wisconsin Upsala College Utah State Agriculture College Vassar College Wabash College Washington & Lee University Washington University Wesleyan University, Connecticut West Virginia Wesleyan Western Maryland College Wheaton College Yale University

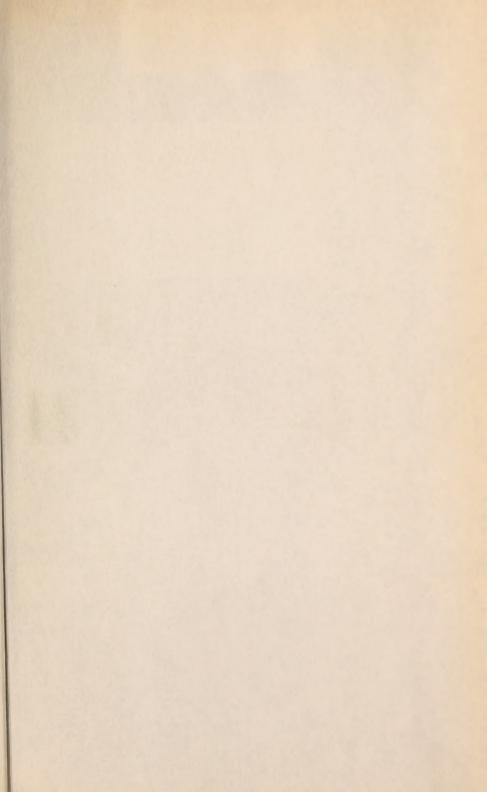
Ohio State University













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Bulletin of the New Jersey state teachers college at...



